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ORGANIC COMPOUNDS
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REGULATION 8
ORGANIC COMPOUNDS
RULE 1
GENERAL PROVISIONS
(Adopted January 1, 1980)

8-1-100 GENERAL

8-1-101 **Description:** The purpose of this Regulation is to limit the emission of organic compounds to the atmosphere. Certain organic compounds may also be subject to the requirements of Regulations 11 or 12. (Amended March 17, 1982)

8-1-110 **Exemptions:** The following shall be exempted from the provisions of this regulation:

110.1 Any structure designed and used exclusively as a dwelling for not more than two families, provided that this exclusion does not apply to the application of an architectural coating.

110.2 Any internal combustion engine.

110.3 Any operation or group of operations which are related to each other by being a part of a continuous process, or a series of such operations on the same process material, which are subject to Regulation 8, Rule 2 or Rule 4, and for which emissions of organic compounds are reduced at least 85% on a mass basis. Where such reduction is achieved by incineration, at least 90% of the organic carbon shall be oxidized to carbon dioxide.

110.4 Stationary storage tanks having a capacity of less than 1.0 m^3 (260 gal.).

110.5 Any stationary storage tank installed prior to January 4, 1967 which is not used for storage of gasoline to be dispensed to internal combustion engine fuel tanks, and is either less than 7.6 m^3 (2000 gal.) capacity or an underground tank with an offset fill line.

110.6 Deleted May 4, 1988.

110.7 Any emission of organic compounds where the person responsible for such emission demonstrates to the satisfaction of the APCO that the emission contains ethane and if the ethane were not present the emission would not violate any standard. (Adopted March 17, 1982)

8-1-200 DEFINITIONS

8-1-201 **Organic Compound:** Any compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate. (Amended June 17, 1981, March 17, 1982)

8-1-202 **Organic Liquids:** All precursor organic compounds which contain hydrogen and which would exist as liquids at actual conditions of use or storage. (Amended March 17, 1982)

8-1-203 **Petroleum Refinery Complex:** Any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants or other products through distillation of petroleum or through redistillation, cracking, rearrangement or reforming of unfinished petroleum derivatives. (Renumbered March 17, 1982)

8-1-204 **Process Unit Turnaround:** Any non-emergency unit shutdown, for the purpose of repair, maintenance or inspection, and subsequent start-up. (Renumbered March 17, 1982)

8-1-205 **Submerged Fill Pipe:** Any discharge pipe or nozzle which meets either of the following conditions:

205.1 Where the tank is filled from the top, the discharge pipe or nozzle is totally submerged when the liquid level is 15 cm.(6 in.) from the bottom of the tank.

205.2 Where the tank is filled from the side, the discharge pipe or nozzle is totally submerged when the liquid level is 45 cm. (18 in.) from the bottom of the tank. (Renumbered March 17, 1982)

8-1-206 **True Vapor Pressure:** The pressure exerted when an organic liquid is in equilibrium with its own vapor expressed in bars. True vapor pressure may be found by referring to applicable nomographs in American Petroleum Institute Bulletin No. 2517. (Renumbered March 17, 1982)

8-1-207 **Volatile Organic Compound (VOC):** Any organic compound which would be emitted during use, application, curing or drying of a solvent or surface coating. (Amended March 17, 1982;June 15, 1994)

8-1-208 **Organic Compound, Non-Precursor:** Methylene chloride, 1,1,1, trichloroethane, 1,1,2 trichlorotrifluoroethane (CFC-113), trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), dichlorotetrafluoroethane (CFC-114), dichlorodifluoromethane (CFC-22) chloropentafluoroethane (CFC-115), 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124), pentafluoroethane (HFC-125), 1,1,2,2-tetrafluoroethane (HFC-134), 1,1,1-trifluoroethane (HFC-134a), 1,1-difluoroethane (HFC-152a), trifluoromethane (CFC-23); and perfluorocarbons which fall into these classes:

(1) Cyclic, branched, or linear completely fluorinated alkanes;

(2) Cyclic, branched, or linear, completely fluorinated ethers with no unsaturations,

(3) Cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations, and

(4) Sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

(Adopted March 17, 1982, Amended June 15, 1994)

8-1-209 **Deleted June 15, 1994**

8-1-300 **STANDARDS**

8-1-320 **Surface Preparation; Clean-up; Coating, Ink, Paint Removal:** Effective August 1, 1988 a person shall not use open containers for the storage or disposal of cloth or paper impregnated with organic compounds that are used for surface preparation, clean-up, or coating, ink, or paint removal. (Adopted May 18, 1988)

8-1-321 **Closed Containers:** Effective August 1, 1988 a person shall not store spent or fresh organic compounds to be used for surface preparation, clean-up, or coating, ink, or paint removal, in open containers. (Adopted May 18, 1988)

8-1-322 **Spray Equipment Clean-up Limitation:** Effective August 1, 1988 a person shall not use organic compounds for the clean-up of spray equipment unless equipment for collection of the cleaning compounds and minimizing its evaporation to the atmosphere is used. (Adopted May 18, 1988)

8-1-600 **MANUAL OF PROCEDURES**

8-1-601 **Analysis of Sample:** Samples of organic compounds as defined in Subsection 110.6 shall be analyzed for vapor pressure as prescribed in the Manual of procedures, Volume III, Method 13. (Adopted March 17, 1982)

8-1-602 **Determination of Emissions:** Emissions of organic compounds as specified in Subsection 8-1-110.3 shall be measured as prescribed by any of the following methods: 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of the rule.

(Adopted March 17, 1982, Amended June 15, 1994)

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REGULATION 8
ORGANIC COMPOUNDS
RULE 2
MISCELLANEOUS OPERATIONS

8-2-100 **GENERAL**

8-2-101 **Description:** The purpose of this Rule is to reduce emissions of precursor organic compounds from miscellaneous operations. (Amended March 17, 1982)

8-2-110 **Exemption, Natural Gas:** Emissions from any operations consisting entirely of natural gas, provided best modern practices are used, are exempt from this Rule.

8-2-111 **Exemption, Preparation of Food:** Emissions from the preparation of food for human consumption provided best modern practices are used, are exempt from this Rule.

8-2-112 **Exemption, Cold Reduction Equipment Used in Metal Forming:** The emissions from any cold reduction equipment used in metal forming are exempt from this rule provided the cooling oil introduced in the cold reduction system is not less than 90 percent (by weight) normal paraffins of a carbon number 12 or higher and that such oil shall have a Reid vapor pressure not greater than 52 mm Hg (1.0 psia).
(Amended September 2, 1981)

8-2-113 **Exemption, Blind Changing:** Emissions from blind changing are exempt from this Rule, providing best modern practices are used. (Amended March 17, 1982)

8-2-114 **Exemption, Miscellaneous Plants:** Emissions from cooling towers, railroad tank cars, marine vessels and crude oil production operations are exempt from this Rule, provided best modern practices are used.

8-2-115 **Exemption, Equipment:** The following equipment is exempt from this Rule, provided best modern practices are used:

115.1 Presses used for the curing of rubber products or plastic products.

115.2 Ovens used exclusively for the curing of plastics which are concurrently being vacuum held to a mold or for the softening or annealing of plastics.

115.3 Ovens used exclusively for the curing of vinyl plastisols by the closed mold curing process.

115.4 Equipment used exclusively for the melting or applying of wax.

115.5 Equipment used exclusively for the packaging of lubricants and greases.

115.6 Equipment used exclusively for the manufacture of water emulsions of waxes, greases or oils.

115.7 Vacuum producing devices in laboratory operations or which are used exclusively in connection with other equipment which is excluded or exempted by this Regulation.

115.8 Vacuum producing devices which do not remove or convey air contaminants from another source.

115.9 Porcelain enameling furnaces, porcelain enameling drying ovens, vitreous enameling furnaces or vitreous enamel drying ovens.

115.10 All printing presses other than rotogravure printing presses.

115.11 Equipment used exclusively for bonding lining to brake shoes.

115.12 Equipment used for hydraulic and hydrostatic testing.

115.13 Ovens and furnaces used for heat treating and annealing metals.

115.14 Oil quench tanks used for tempering heated metals.

115.15 Crucible type or pot type furnaces with a brimful capacity of less than 450 in^3 of molten metal.

115.16 Space heating and heat transfer operations using gas fuel and rated at less than one million BTU's per hour.

115.17 Equipment used exclusively for steam cleaning.

8-2-116 **Exemption, Equipment or Exhaust System:** The following equipment or any exhaust system or collector exclusively serving such equipment is exempt from this Rule providing best modern practices are used:

116.1 Ovens used exclusively for curing potting materials or for castings made with epoxy resins.

116.2 Equipment used for compression molding or injection molding of plastics.

116.3 Dipping operations for coating objects with oils, waxes, or greases.

116.4 Dipping operations for applying coatings of natural or synthetic resins which contain no organic solvents.

116.5 Unheated solvent dispensing containers, unheated solvent rinsing containers, or unheated coating dip tanks, all of 100 gal. capacity or less.

116.6 Kilns used for firing ceramic ware, heated exclusively by natural gas, liquefied petroleum gas, electricity or any combination thereof.

116.7 Shell core and shell molding machines.

116.8 Die casting machines.

116.9 Laboratory equipment used exclusively for chemical or physical analyses and bench scale laboratory equipment.

8-2-117 **Exemption, Open Outdoor Fires:** The limitations of this Rule shall not apply to emissions arising from open outdoor fires. (Adopted December 19, 1990)

8-2-200 **DEFINITIONS**

8-2-201 **Miscellaneous Operations:** Any operation other than those limited by the other Rules of this Regulation 8 and the Rules of Regulation 10.

8-2-202 **Total Carbon:** Organic compounds calculated as total carbon shall be determined as follows:

202.1 Total carbon of an individual organic compound is equal to the ppm of that compound in an emission multiplied by the number of carbon atoms present in the molecule.

202.2 Total carbon in an emission is the sum of the total carbon of all of the individual organic compounds present in the effluent. 1,1,1, trichloroethane, methylene chloride, methane and chlorofluorocarbons shall not be included in the calculation of total carbon.

8-2-300 **STANDARDS**

8-2-301 **Miscellaneous Operations:** A person shall not discharge into the atmosphere from any miscellaneous operation an emission containing more than 6.8 kg. (15 lbs.) per day and containing a concentration of more than 300 PPM total carbon on a dry basis. (Amended May 21, 1980)

8-2-600 **MANUAL OF PROCEDURES**

8-2-601 **Determination of Compliance:** Emissions of organic compounds as specified in Section 8-2-301 shall be measured as prescribed by any of the following methods 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule.

(Adopted March 17, 1982, Amended June 15, 1994)

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REGULATION 8
ORGANIC COMPOUNDS
RULE 3
ARCHITECTURAL COATINGS

(Adopted March 1, 1978)

8-3-100 GENERAL

8-3-101 **Description:** The purpose of this Rule is to limit the quantity of volatile organic compounds in architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the District.

(Amended November 21, 2001)

8-3-102 **Applicability:** Except as provided in Section 8-3-110, this Rule is applicable to any person who supplies, sells, offers for sale, or manufacturers any architectural coating for use within the District, as well as any person who applies or solicits the application of any architectural coating within the District.

(Adopted November 21, 2001)

8-3-103 **Severability:** If a court of competent jurisdiction issues an order that any provision of this rule is invalid, it is the intent of the Board of Directors of the District that other provisions of this rule remain in full force and affect, to the extent allowed by law.

(Adopted November 21, 2001)

8-3-110 **Exemptions:** This rule does not apply to:

110.1 Any architectural coating that is sold or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging;

110.2 Any aerosol coating product; or

110.3 Any architectural coating that is sold in a container with a volume of one liter (1.057 quart) or less.

(Amended, Renumbered November 21, 2001)

8-3-111 Deleted November 21, 2001
8-3-112 Deleted January 8, 1986
8-3-113 Deleted November 21, 2001
8-3-114 Deleted November 21, 2001

8-3-200 DEFINITIONS

8-3-201 **Adhesive:** Any chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means.

(Adopted November 21, 2001)

8-3-202 **Aerosol Coating Product:** A pressurized coating product containing pigments or resins that dispense product ingredients by means of a propellant, and is packaged in a disposable can for hand-held application, or for use in specialized equipment for ground traffic/marking applications. Aerosol coating products are subject to District Regulation 8, Rule 49 or the provisions of 17 California Code of Regulations 94520 *et. seq.*

(Adopted November 21, 2001)

8-3-203 **Antenna Coating:** A coating labeled and formulated exclusively for application to equipment and associated structural appurtenances that are used to receive or transmit electromagnetic signals.

(Adopted November 21, 2001)

8-3-204 **Antifouling Coating:** A coating labeled and formulated for application to submerged stationary structures and their appurtenances to prevent or reduce the attachment of marine or freshwater biological organisms. To qualify as an antifouling coating, the coating must be registered with both the U.S. Environmental Protection Agency under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. Section 136, *et seq.*) and with the California Department of Pesticide Regulation.

(Adopted November 21, 2001)

8-3-205 **Appurtenances:** Any accessory to a stationary structure coated at the site of installation, whether installed or detached, including but not limited to: bathroom and kitchen fixtures; cabinets; concrete forms; doors; elevators; fences; hand railings; heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools; lampposts; partitions; pipes and piping systems; rain-gutters and down-spouts; stairways, fixed ladders, catwalks, and fire escapes; and window screens.

(Adopted November 21, 2001)

8-3-206 **Architectural Coatings:** A coating to be applied to stationary structures and their appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs. Coatings applied in shop applications or to non-stationary structures such as airplanes, ships, boats, railcars, and automobiles, and adhesives are not considered architectural coatings for the purpose of this rule.

(Amended, Renumbered November 21, 2001)

8-3-207 **Bitumens:** Black or brown materials including, but not limited to, asphalt, tar, ptich and asphaltite that are soluble in carbon disulfide, consist mainly of hydrocarbons and are obtained from natural deposits or as residues from the distillation of crude petroleum or coal.

(Renumbered 5/18/83; Amended, Renumbered 11/21/01)

8-3-208 **Bituminous Roof Coating:** A coating which incorporates bitumens that is labeled and formulated exclusively for roofing.

(Amended November 21, 2001)

8-3-209 **Bituminous Roof Primer:** A primer which incorporates bitumens that is labeled and formulated exclusively for roofing.

(Amended November 21, 2001)

8-3-210 **Bond Breakers:** A coating labeled and formulated for application between layers of concrete to prevent a freshly poured top layer of concrete from bonding to the layer over which it is poured.

(Adopted 5/18/83; Amended, Renumbered 11/21/01)

8-3-211 **Clear Brushing Lacquers:** Clear wood finishes, excluding clear lacquer sanding sealers, formulated with nitrocellulose or synthetic resins to dry by solvent evaporation without chemical reaction and to provide a solid, protective film, which are intended exclusively for application by brush, and which are labeled as specified in subsection 8-3-401.5.

(Adopted November 21, 2001)

8-3-212 **Clear Wood Coatings:** Clear and semi-transparent coatings, including lacquers and varnishes, applied to wood substrates to provide a transparent or translucent solid film.

(Adopted November 21, 2001)

8-3-213 **Coating:** A material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealers, and stains.

(Adopted November 21, 2001)

8-3-214 **Colorant:** A concentrated pigment dispersion in water, solvent, and/or binder that is added to an architectural coating after packaging in sale units to produce the desired color.

(Adopted November 21, 2001)

8-3-215 **Concrete Curing Compound:** A coating labeled and formulated for application to freshly poured concrete to retard the evaporation of water.

(Adopted 5/18/83; Amended, Renumbered 11/21/01)

8-3-216 **Dry Fog Coating:** A coating labeled and formulated only for spray application such that overspray droplets dry before subsequent contact with incidental surfaces in the vicinity of the surface coating activity.

(Adopted November 21, 2001)

8-3-217 **Exempt Compound:** A compound identified by the US EPA as having a negligible contribution to photochemical reactivity. Compounds exempt for the purposes of this Rule are listed in subsection 8-3-261.1.

(Adopted November 21, 2001)

8-3-218 **Faux Finishing Coating:** A coating labeled and formulated as a stain or glaze to create artistic effects including, but not limited to, dirt, old age, smoke damage, and simulated marble and wood grain.

(Adopted November 21, 2001)

8-3-219 **Fire-Resistive Coating:** An opaque coating labeled and formulated to protect the structural integrity by increasing the fire endurance of interior or exterior steel and other structural materials, that has been fire tested and rated by a testing agency approved by building code officials for use in bringing assemblies of structural materials into compliance with federal, state, and local building code requirements. The fire-resistive coating and the testing agency must be approved by building code officials. The fire-resistive coating shall be tested in accordance with ASTM Designation E 119-98, incorporated by reference in subsection 8-3-606.2.

(Adopted November 21, 2001)

8-3-220 **Fire-Retardant Coating:** A coating labeled and formulated to retard ignition and flame spread, that has been fire tested and rated by a testing agency approved by building code officials for use in bringing building and construction materials into compliance with federal, state, and local building code requirements. The fire-retardant coating and the testing agency must be approved by building code officials. The fire-retardant coating shall be tested in accordance with ASTM Designation E 84-99, incorporated by reference in subsection 8-3-606.1.

(Renumbered 5/18/81; Amended, Renumbered 11/21/01)

8-3-221 **Flat Coating:** A coating that is not defined under any other definition in this rule and that registers gloss less than 15 on an 85-degree meter or less than 5 on a 60-degree meter according to ASTM Designation D 523-89 (1999), incorporated by reference in subsection 8-3-606.3.

(Adopted November 21, 2001)

8-3-222 **Floor Coating:** An opaque coating that is labeled and formulated for application to flooring, including, but not limited to, decks, porches, steps, and other horizontal surfaces which may be subject to foot traffic.

(Adopted November 21, 2001)

8-3-223 **Flow Coating:** A coating labeled and formulated exclusively for use by electric power companies or their subcontractors to maintain the protective coating systems present on utility transformer units.

(Adopted November 21, 2001)

8-3-224 **Form-Release Compound:** A coating labeled and formulated for application to a concrete form to prevent the freshly poured concrete from bonding to the form. The form may consist of wood, metal, or some other material other than concrete.

(Adopted November 21, 2001)

8-3-225 **Graphic Arts Coating or Sign Paint:** A coating labeled and formulated for hand application by artists using brush or roller techniques to indoor and outdoor signs (excluding structural components) and murals, including lettering enamels, poster colors, copy blockers, and bulletin enamels.

(Amended, Renumbered 5/18/83, 11/21/01)

8-3-226 **High-Temperature Coating:** A high performance coating labeled and formulated for application to substrates exposed continuously or intermittently to temperatures above 204°C (400°F).

(Adopted November 21, 2001)

8-3-227 **Industrial Maintenance Coating:** A high performance architectural coating, including primers, sealers, undercoaters, intermediate coats, and topcoats, formulated for application to substrates exposed to one or more of the following extreme environmental conditions listed in subsections 8-3-227.1 through 227.5, and labeled as specified in subsection 8-3-401.4:

227.1 Immersion in water, wastewater, or chemical solutions (aqueous and non-aqueous solutions), or chronic exposure of interior surfaces to moisture condensation;

227.2 Acute or chronic exposure to corrosive, caustic, or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions;

227.3 Repeated exposure to temperatures above 121°C (250°F);

227.4 Repeated (frequent) heavy abrasion, including mechanical wear and repeated (frequent) scrubbing with industrial solvents, cleansers, or scouring agents; or

227.5 Exterior exposure of metal structures and structural components.

(Amended, Renumbered 5/18/83; Amended 1/8/86; Amended, Renumbered 11/21/01)

8-3-228 **Lacquer:** A clear or opaque wood coating, including clear lacquer sanding sealers, formulated with cellulosic or synthetic resins to dry by evaporation without chemical reaction and to provide a solid, protective film.

(Amended, Renumbered 5/18/83, 11/21/01)

8-3-229 **Low-Solids Coating:** A coating containing 0.12 kilogram or less of solids per liter (1 pound or less of solids per gallon) of coating material.

(Adopted 11/4/98; Amended, Renumbered 11/21/01)

8-3-230 **Magnesite Cement Coating:** A coating labeled and formulated for application to magnesite cement decking to protect the magnesite cement substrate from erosion by water.

(Adopted November 21,2001)

8-3-231 **Mastic Texture Coating:** A coating labeled and formulated to cover holes and minor cracks, and to conceal surface irregularities, and applied in a single coat of at least 10 mils (0.010 inch) dry film thickness.

(Adopted 5/18/83; Amended, Renumbered 11/21/01)

8-3-232 **Metallic Pigmented Coating:** A coating containing at least 48 grams of elemental metallic pigment per liter of coating as applied (0.4 pounds per gallon), when tested in accordance with South Coast Air Quality Management District Method 318-95, incorporated by reference in subsection 8-3-606.4.

(Renumbered 5/18/83; Amended, Renumbered 11/21/01)

8-3-233 **Multi-Color Coating:** A coating that is packaged in a single container and that exhibits more than one color when applied in a single coat.

(Renumbered 5/18/83; Amended, Renumbered 11/21/01)

8-3-234 **Nonflat Coating:** A coating that is not defined under any other definition in this rule and that registers a gloss of 15 or greater on an 85-degree meter and 5 or greater on a 60-degree meter according to ASTM Designation D 523-89 (1999), incorporated by reference in subsection 8-3-606.3.

(Adopted 9/1/82; Amended, Renumbered 11/21/01)

8-3-235 **Nonflat – High Gloss Coating:** A nonflat coating that registers a gloss of 70 or above on a 60 degree meter according to ASTM Designation D 523-89 (1999), incorporated by reference in subsection 8-3-606.3.

(Adopted November 21, 2001)

8-3-236 **Non-Industrial Use:** Non-industrial use means any use of architectural coatings except in the construction or maintenance of any of the following: facilities used in the manufacturing of goods and commodities; transportation infrastructure, including highways, bridges, airports and railroads; facilities used in mining activities, including petroleum extraction; and utilities infrastructure, including power generation and distribution, and water treatment and distribution systems.

(Adopted November 21, 2001)

8-3-237 **Post-Consumer Coating:** A finished coating that would have been disposed of in a landfill, having completed its usefulness to a consumer, and does not include manufacturing wastes.

(Adopted November 21, 2001)

8-3-238 **Pre-Treatment Wash Primer:** A primer that contains a minimum of 0.5 percent by acid, by weight, when tested in accordance with ASTM Designation D 1613-96, incorporated by reference in subsection 8-3-606.5, that is labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent topcoats.

(Adopted November 21, 2001)

8-3-239 **Primer:** A coating labeled and formulated for application to a substrate to provide a firm bond between the substrate and subsequent coats.

(Adopted November 21, 2001)

8-3-240 **Quick-Dry Enamel:** A nonflat coating that is labeled as specified in subsection 8-3-401.8 and that is formulated to have the following characteristics:

240.1 Is capable of being applied directly from the container under normal conditions with ambient temperatures between 16°C and 27°C (60°F and 80°F);

240.2 When tested in accordance with ASTM Designation D 1640-95, incorporated by reference in subsection 8-3-606.6, sets to touch in 2 hours or less, is tack free in 4 hours or less, and dries hard in 8 hours or less by the mechanical method test; and

240.3 Has a dried film gloss of 70 or above on a 60-degree meter.

(Adopted 9/1/82; Amended, Renumbered 5/18/83,11/21/01)

8-3-241 **Quick Dry Primer, Sealer, and Undercoater:** A primer, sealer, or undercoater that is dry to touch in 30 minutes and can be recoated in 2 hours when tested in accordance with ATSM D 1640-95, incorporated by reference in subsection 8-3-606.6.

(Adopted 5/18/83; Amended, Renumbered 11/21/01)

8-3-242 **Recycled Coating:** An architectural coating formulated such that not less than 50 percent of the total weight consists of secondary and post-consumer coating, with not less than 10 percent of the total weight consisting of post-consumer coating.

(Adopted November 21,2001)

8-3-243 **Residential:** Areas where people reside or lodge, including, but not limited to, single and multiple family dwellings, condominiums, mobile homes, apartment complexes, motels, and hotels.

(Adopted November 21, 2001)

8-3-244 **Roof Coating:** A non-bituminous coating labeled and formulated exclusively for application to roofs for the primary purpose of preventing penetration of the substrate by water or reflecting heat and ultraviolet radiation. Metallic pigmented roof coatings which qualify as Metallic Pigmented Coating shall not be considered to be in this category, but shall be considered to be in the Metallic Pigmented Coating category.

(Adopted 5/18/83; Amended, Renumbered 11/21/01)

8-3-245 **Rust Preventative Coating:** A coating formulated for non-industrial use to prevent the corrosion of metal surfaces and labeled as specified in subsection 8-3-401.6.

(Adopted November 21, 2001)

8-3-246 **Sanding Sealer:** A clear or semi-transparent wood coating labeled and formulated for application to bare wood to seal the wood and to provide a coat that can be abraded to create a smooth surface for subsequent applications of coatings. A sanding sealer that also meets the definition of a lacquer is not included in this category, but is included in the lacquer category.

(Adopted November 21, 2001)

8-3-247 **Sealer:** A coating labeled and formulated for application to a substrate for one or more of the following purposes: to prevent subsequent coatings from being absorbed by the substrate, or to prevent harm to subsequent coatings by materials in the substrate.

(Adopted November 21, 2001)

8-3-248 **Secondary Coating (Rework):** A fragment of a finished coating or a finished coating from a manufacturing process that has converted resources into a commodity of real economic value, but does not include excess virgin resources of the manufacturing process.

(Adopted November 21, 2001)

8-3-249 **Shellac:** A clear or opaque coating formulated solely with the resinous secretions of the lac beetle (Laccifer lacca), thinned with alcohol, and formulated to dry by evaporation without a chemical reaction.

(Amended, Renumbered 5/18/83, 11/21/01)

8-3-250 **Shop Application:** Application of a coating to a product or a component of a product in or on the premises of a factory or a shop as part of a manufacturing, production, or repairing process (e.g., original equipment manufacturing coatings).

(Adopted November 21, 2001)

8-3-251 **Solicit:** To require for use or to specify, by written or oral contract.

(Adopted November 21, 2001)

8-3-252 **Specialty Primer, Sealer and Undercoater:** A coating labeled as specified in subsection 8-3-401.7 and that is formulated for application to a substrate to seal fire, smoke or water damage; to condition excessively chalky surfaces; or to block stains. An excessively chalky surface is one that is defined as having a chalk rating of four or less as determined by ASTM Designation D 4214-98, incorporated by reference in subsection 8-3-606.7.

(Adopted 5/18/83; Amended, Renumbered 11/21/01)

8-3-253 **Stain:** A clear, semitransparent, or opaque coating labeled and formulated to change the color of a surface but not conceal the grain pattern or texture.

(Renumbered 5/18/83; Amended, Renumbered 11/21/01)

8-3-254 **Swimming Pool Coating:** A coating labeled and formulated to coat the interior of swimming pools and to resist swimming pool chemicals.

(Adopted November 21, 2001)

8-3-255 **Swimming Pool Repair And Maintenance Coating:** A rubber based coating labeled and formulated to be used over existing rubber based coatings for the repair and maintenance of swimming pools.

(Adopted November 21, 2001)

8-3-256 **Temperature-Indicator Safety Coating:** A coating labeled and formulated as a color-changing indicator coating for the purpose of monitoring the temperature and safety of the substrate, underlying piping, or underlying equipment, and for application to substrates exposed continuously or intermittently to temperatures above 204°C (400°F).

(Adopted November 21, 2001)

8-3-257 **Tint Base:** An architectural coating to which colorant is added after packaging in sale units to produce a desired color.

(Adopted November 21, 2001)

8-3-258 **Traffic Marking Coating:** A coating labeled and formulated for marking and striping streets, highways, or other traffic surfaces including, but not limited to curbs, berms, driveways, parking lots, sidewalks, and airport runways.

(Adopted 5/18/83; Amended, Renumbered 11/21/01)

8-3-259 **Undercoater:** A coating labeled and formulated to provide a smooth surface for subsequent coats.

(Adopted November 21, 2001)

8-3-260 **Varnish:** A clear or semi-transparent wood coating, excluding lacquers and shellacs, formulated to dry by chemical reaction on exposure to air. Varnishes may contain small amounts of pigment to color a surface, or to control the final sheen or gloss of the finish.

(Amended, Renumbered 5/18/83; Amended 1/8/86; Amended, Renumbered 11/21/01)

8-3-261 **Volatile Organic Compound (VOC):** Any organic compound (excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate) which would be emitted during use, application, curing or drying of an architectural coating.

261.1 For purposes of calculating VOC content of a coating, any water or the following non-precursor organic compounds:

acetone
methyl acetate
parachlorobenzotrifluoride (PCBTF)
cyclic, branched or linear, completely methylated siloxanes (VMS)

shall not be considered to be part of the coating.

261.2 For the purposes of calculating VOC content of a low solids coating, any water or non-precursor organic compound listed in subsection 8-3-261.1 shall be considered part of the coating, but shall not be considered part of the VOC content of the coating.

(Adopted 12/20/95; Amended 11/4/98; Amended, Renumbered 11/21/01)

8-3-262 **VOC Content:** The calculation to determine the VOC content of a coating is found in the Manual of Procedures, Volume III, Laboratory Methods 21, 22 and 31.

(Adopted November 21, 2001)

8-3-263 **Waterproofing Sealer:** A coating labeled and formulated for application to a porous substrate for the primary pupose of preventing the penetration of water.

(Amended, Renumbered 5/18/83, 11/21/01)

8-3-264 **Waterproofing Concrete/Masonry Sealer:** A clear or pigmented film-forming coating that is labeled and formulated for sealing concrete and masonry to provide resistance against water, alkalis, acids, ultraviolet light, and staining.

(Adopted November 21, 2001)

8-3-265 **Wood Preservative:** A coating labeled and formulated to protect exposed wood from decay or insect attack, that is registered with both the U.S. Environmental Protection Agency under the Federal Insecticide, Fungicide, and Rodenticide Act (7 United States Code (U.S.C.) Section 136, *et seq.*) and with the California Department of Pesticide Regulation.

(Adopted 5/18/83; Amended, Renumbered 11/21/01)

8-3-300 STANDARDS

8-3-301 VOC Content Limits: Except as provided in Sections 8-3-302, 303, 307, and 308, no person shall: (i) manufacture, blend, or repackage for sale within the District; (ii) supply, sell, or offer for sale within the District; or (iii) solicit for application or apply within the District, any architectural coating with a VOC content in excess of the corresponding limit specified in the following table. Limits are expressed in grams of VOC per liter of coating as thinned to the manufacturer's maximum recommendation, excluding the volume of any water, exempt compounds, or colorant added to the tint bases. "Manufacturer's maximum recommendation" means the maximum recommendation for thinning that is indicated on the label or lid of the coating container.

Coating Category	Limit	Effective 1/1/2003	Effective 1/1/2004
Flat Coatings	250	100	
Nonflat Coatings	250	150	
Nonflat – High Gloss Coatings	250		
Specialty Coatings:			
Antenna Coatings	530		
Antifouling Coatings	420	400	
Bituminous Roof Coatings	300		
Bituminous Roof Primers	350		
Bond Breakers	600(2)	350	
Clear Wood Coatings:			
Clear Brushing Lacquer	680		
Lacquer (including lacquer sanding sealer)	680	550(1)	
Sanding sealer	550	350	
Varnish	350		
Concrete Curing Compounds	350		
Dry Fog Coatings	400(2)		
Faux Finishing Coatings	350		
Fire Resistive Coatings	450(2)	350	
Fire Retardant Coatings:			
Clear	850(2)	650	
Opaque	450(2)	350	
Floor Coatings	400	250	
Flow Coatings	420		
Form-Release Compounds	250		
Graphic Arts Coatings (Sign Paints)	500(2)		
High Temperature Coatings	420		
Industrial Maintenance Coatings	420		250
Low Solids Coatings	120		
Magnesite Cement Coatings	450		
Mastic Texture Coatings	300(2)		
Metallic Pigmented Coatings	500(2)		
Multi-Color Coatings	580(2)	250	
Pre-Treatment Wash Primers	420		
Primers, Sealers, and Undercoaters	350	200	
Quick-Dry Enamels	400	250	
Quick-Dry Primers, Sealers, Undercoaters	450(2)	200	
Recycled Coatings	250		
Roof Coatings	250(2)		
Rust Preventative Coatings	420	400	

Coating Category	Limit	Effective 1/1/2003	Effective 1/1/2004
Shellacs:			
Clear	730[2]		
Opaque	550[2]		
Specialty Primers, Sealers and Undercoaters	350		
Stains	350	250	
Swimming Pool Coatings	600[2]	340	
Swimming Pool Repair and Maintenance Coatings	600[2]	340	
Temperature-Indicator Safety Coatings	550		
Traffic Marking Coatings	250	150	
Waterproofing Concrete/Masonry Sealers	400		
Waterproofing Sealers	400	250	
Wood Preservatives:			
Above ground	350		
Below ground	550[2]	350	

[1] A person may add up to 10 percent by volume of VOC to a lacquer to avoid blushing of the finish provided that, (i) the relative humidity at the time of coating application is greater than 70%, (ii) the temperature at the time of coating application is below 18°C (65°F), (iii) the lacquer contains acetone, and (iv) the lacquer contains no more than 550 grams of VOC per liter of coating, less water and exempt compounds, prior to the addition.

[2] VOC limit effective April 1, 2002.

(Amended 9/1/82, 5/18/83, 1/8/86, 9/3/86, 11/4/98; Amended, Renumbered 11/21/01)

8-3-302 **Most Restrictive VOC Limits:** If anywhere on the container of any architectural coating or any label or sticker affixed to the container, or in any sales, advertising or technical literature supplied by a manufacturer or anyone acting on their behalf, any representation is made that indicates that the coating meets the definition of or is recommeded for use for more than one of the coating categories listed in the table in Section 8-3-301, then the most restrictive VOC limit shall apply. This Section does not apply to the following coating categories:

302.1: Antenna coatings,
302.2: Antifouling coatings,
302.3: Bituminous roof coatings,
302.4: Fire-retardant coatings,
302.5: Flow coatings,
302.6: High temperature coatings,
302.7: Industrial maintenance coatings,
302.8: Lacquer coatings (including lacquer sanding sealers),
302.9: Low-solids coatings,
302.10: Metallic pigmented coatings,
302.11: Pretreatment wash primers,
302.12: Shellacs,
302.13: Specialty primers, sealers and undercoaters,
302.14: Temperature-indicator safety coatings, and
302.15: Wood preservatives.

(Adopted 4/17/86; Amended 1/8/86; Amended, Renumbered 11/21/01)

8-3-303 **Sell-Through of Coatings:** Any coating manufactured prior to the January 1, 2003 or January 1, 2004 effective dates that does not comply with the VOC limits effective on those dates may be supplied, offered for sale, or sold for up to three years after the effective dates provided that (i) the coating was in compliance with the VOC limits in effect at the time of manufacture, and (ii) the date or date-code is displayed on the coating container as required by subsection 8-3-401.1. Any coating subject to this Section may be applied at any time after the effective dates.

303.1 Until January 1, 2008, any coating included in an approved Averaging Program that does not comply with the VOC limits in Section 8-3-301 may be supplied, offered for sale or sold for up to three years after the end of the compliance period specified in the approved Averaging Program provided that either the statement: "This product is subject to architectural coatings averaging provisions in California" or a substitute symbol specified by the Executive Officer of the California Air Resources Board is displayed on the coating container. Any coating subject to this subsection may be applied at any time after the period specified in the Averaging Program.

(Adopted November 21, 2001)

8-3-304 **Painting Practices:** All architectural coating containers shall be closed when not in use. "In use" is the active application of contents to a surface by pouring, siphoning, brushing, rolling, padding, ragging or other means. Architectural coating containers include but are not limited to, drums, buckets, cans, pails, trays and any other application containers. Containers of any VOC-containing materials used for thinning or cleanup shall also be closed when not in use.

(Adopted November 21, 2001)

8-3-305 **Prohibition of Excess Thinning:** No person who applies or solicits the application of any architectural coating shall apply a coating that is thinned to exceed the applicable VOC limit specified in Section 8-3-301.

(Adopted November 21, 2001)

8-3-306 **Rust Preventative Coatings:** Effective January 1, 2004, a person shall only apply and solicit the application of rust preventative coatings for non-industrial uses, unless such coatings comply with the VOC limit for industrial maintenance coating as specified in Section 8-45-301.

(Adopted November 21, 2001)

8-3-307: **Coatings Not Listed in Section 8-3-301:** Any coating that does not meet any of the definitions for a specialty coating listed in Section 8-3-301 shall be classified as a flat, nonflat or nonflat high gloss coating, based on it's gloss, as defined in Section 8-3-221, 234 or 235, and the corresponding VOC limit shall apply.

(Adopted November 21, 2001)

8-3-308: **Averaging Compliance Option:** Effective January 1, 2003, in lieu of compliance with the specified VOC limits in Section 8-3-301, any of the following coatings may be averaged by the manufacturer such that their actual cumulative emissions over a compliance period not to exceed one year, as calculated from sales of the designated coatings, are less than or equal to the cumulative emissions that would have been allowed under the specified VOC limits, provided that, (i) the manufacturer complies with the provisions of the Manual of Procedures, Volume I, Number 7, and, (ii) the manufacturer maintains and makes available inspection records for at least three years after the end of each compliance period:

307.1 Bituminous roof coatings,
307.2 Flats,
307.3 Floor coatings,
307.4 Industrial maintenance coatings,
307.5 Nonflats,
307.6 Primers, sealers, and undercoaters,
307.7 Quick-dry enamels,
307.8 Quick-dry primers, sealers, and undercoaters,
307.9 Roof coatings,
307.10 Rust preventative coatings,
307.11 Stains, and
307.12 Waterproofing sealers.

This Section and Volume I, Number 7 of the Manual of Procedures: Averaging Provision for Archtectural Coatings, shall be effective only until January 1, 2005, after which this compliance option shall no longer be allowed.

(Adopted November 21, 2001)

8-3-309 **Limited Allowance, Industrial Maintenance Coatings:** Effective January 1, 2004, industrial maintenance coatings with a VOC content of greater than 250 grams VOC per liter but no greater than 340 grams VOC per liter may be manufactured, sold,

offered for sale, solicited, and applied in the District provided the user of the coating, or manufacturer or seller on behalf of the user, has petitioned the APCO for use of the coating as per Section 8-3-402 and has received written approval. The APCO shall not approve any petition if the approval, when combined with approvals granted previously during the calendar year, would result in excess emissions of greater than 10 tons per year. Excess emissions are emissions greater than those that would result from an equal volume of coating at the VOC limit of 250 grams per liter. This Section shall not apply to industrial maintenance coatings offered for sale to the general public.

(Adopted November 21, 2001)

8-3-400 ADMINISTRATIVE REQUIREMENTS

8-3-401 Container Labeling Requirements: Each container for any coating subject to this Rule shall display all the information in subsection 8-3-401.1 through 401.3, and, as applicable, the information in subsection 8-3-401.4 through 401.9:

401.1 Date Code: On the label, lid or bottom; the date the coating was manufactured, or a date code representing the date. If the manufacturer uses a date code, an explanation of each code must be filed with the Executive Officer of the Air Resources Board and be made available to the Air Pollution Control Officer on request.

401.2 Thinning Recommendation: On the label or lid; a statement of the manufacturer's recommendation regarding thinning of the coating so as not to exceed the VOC limit listed in Section 8-3-301. This requirement does not apply to the thinning of coatings with water. If thinning prior to use is not necessary, the recommendation must specify that the coating is to be applied without thinning.

401.3 VOC Content: On the container; the maximum or actual VOC content of the coating, as supplied, including the VOC content at maximum thinning as recommended by the manufacturer. VOC content shall be displayed as grams VOC per liter of coating. VOC content may be calculated using product formulation data or shall be determined using the test method specified in Section 8-3-601, 602 or 604.

401.4 For Industrial Maintenance Coatings: On the label or lid; one or more of the following: (i) "For Industrial Use Only," (ii) "For Professional Use Only," (iii) "Not For Residential Use," or (iv) "Not Intended For Residential Use" shall be prominently displayed.

401.5 For Clear Brushing Lacquers: Effective January 1, 2003, "For Brush Application Only," and "This Product Must Not Be Thinned Or Sprayed" shall be prominently displayed on the label.

401.6 For Rust Preventative Coatings: Effective January 1, 2003, "For Metal Substrates Only" shall be prominently displayed on the label.

401.7 For Specialty Primers, Sealers, and Undercoaters: Effective January 1, 2003, one of the following: (i) For Blocking Stains, (ii) For Fire-Damaged Substrates, (iii) For Smoke-Damaged Substrates, (iv) For Water-Damaged Substrates, or, (v) For Excessively Chalky Surfaces shall be prominently displayed on the label.

401.8 For Quick Dry Enamels: Effective January 1, 2003, "Quick Dry" and the dry hard time shall be prominently displayed on the label.

401.9 For Nonflat – High Gloss Coatings: Effective January 1, 2003, "High Gloss" shall be prominently displayed on the label.

(Amended 3/17/82, 12/1/82, 5/18/83, 1/8/86; Amended, Renumbered 11/21/01)

8-3-402 Petition, Limited Allowance for Industrial Maintenance Coatings: A person seeking to use the limited allowance for industrial maintenance coatings as per Section 8-3-309 shall comply with the following requirements:

402.1 The petitioner shall certify that complying coatings able to meet the job performance requirements are not available.

402.2 The petition shall contain the following information, as applicable: (i) job requirements, and job and site description, (ii) volume of coating required, and, (iii) maximum VOC content of coating to be applied.

402.3 If the APCO grants written approval, the approval shall contain volume and allowable VOC content conditions. Until written approval is granted and received by the petitioner, all provisions of this Rule shall apply.

(Adopted November 21, 2001)

8-3-500 MONITORING AND RECORDS

8-3-501 **Reporting Requirements:** Each manufacturer of the following products shall submit a report to the Executive Officer of the California Air Resources Board on or before April 1 of each calendar year beginning in the year 2004. The report shall contain the following information for the preceding calendar year, but need only be submitted once each year for all districts:

501.1 Clear Brushing Lacquers: Number of gallons of clear brushing lacquers sold in California and the method used to calculate California sales.

501.2 Rust Preventative Coatings: Number of gallons of rust preventative coatings sold in California and the method used to calculate California sales.

501.3 Specialty Primers, Sealers and Undercoaters: Number of gallons of specialty primers, sealers and undercoaters as defined in Section 8-3-252 sold in California and the method used to calculate California sales.

501.4 Toxic Compounds: For coatings that contain methylene chloride or perchloroethylene, (i) product brand name and a copy of product label with legible usage instructions, (ii) product category as defined by this Rule to which the product belongs, (iii) total sales in California during the calendar year to the nearest gallon, and (iv) volume percentage, to the nearest 0.10%, of methylene chloride or perchloroethylene in the coating.

501.5 Recycled Coatings: Number of gallons of recycled coatings distributed in California and the method used to calculate California distribution. In addition, each manufacturer shall submit a certification of their status as a Recycled Paint Manufacturer, but need only submit a certification once.

501.6 Bituminous Coatings: Number of gallons of bituminous roof coatings and bituminous roof primers sold in California and the method used to calculate California sales.

(Adopted November 21, 2001)

8-3-600 MANUAL OF PROCEDURES

8-3-601 **Determination of Compliance, Air-Dried Water Reducible Coatings:** The means by which compliance of air-dried, water reducible coatings is determined are found in the Manual of Procedures, Volume III, Method 21.

(Amended 3/17/82, 5/18/83)

8-3-602 **Determination of Compliance, Air-Dried Solvent Based Coatings:** The means by which compliance of air-dried, solvent based coatings is determined are found in the Manual of Procedures, Volume III Method 22.

(Amended 3/17/82, 5/18/83)

8-3-603 **Deleted November 21, 2001**

8-3-604 **Determination of Compliance, Low Solids Architectural Coatings:** The means by which compliance of low solids architectural coatings is determined are found in the Manual of Procedures, Volume III, Method 31.

(Adopted November 4, 1998)

8-3-605 **Determination of Compliance, Methacrylate Traffic Marking Coatings:** Analysis of methacrylate multicomponent coatings used as traffic marking coatings shall be conducted according to a modification of U.S. Environmental Protection Agency Method 24 (40 CFR 59, subpart D, Appendix A). This method has not been approved for methacrylate multicomponent coatings used for purposes other than as traffic marking coatings or for other classes of multicomponent coatings.

(Adopted November 21, 2001)

8-3-606 **Incorporated Test Methods:** The following test methods are incorporated by reference herein, and shall be used to test coatings subject to provisions of this Rule:

606.1 Flame Spread Index: The flame spread index of a fire-retardant coating shall be determined by ASTM Designation E 84-99, "Standard Test Method for Surface Burning Characteristics of Building Materials," (see Section 8-3-220, Fire-Retardant Coating).

606.2 Fire Resistance Rating: The fire resistance rating of a fire-resistive coating shall be determined by ASTM Designation E 119-98, "Standard Test Methods for Fire Tests of Building Construction Materials," (see Section 8-3-219, Fire-Resistive Coating).

606.3 Gloss Determination: The gloss of a coating shall be determined by ASTM Designation D 523-89 (1999), "Standard Test Method for Specular Gloss," (see Section 8-3-221, 234, 235 and 240, Flat Coating, Nonflat Coating, Nonflat High Gloss Coating, and Quick-Dry Enamels).

606.4 Metal Content of Coatings: The metallic content of a coating shall be determined by South Coast Air Quality Management District Method 318-95, "Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction," South Coast Air Quality Management District "Laboratory Methods of Analysis for Enforcement Samples," (see Section 8-3-232, Metallic Pigmented Coating).

606.5 Acid Content of Coatings: Measurement of acid content of Pre-Treatment Wash Primers shall be determined by ASTM Designation D 1613-96, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products," (see Section 8-3-238, Pre-Treatment Wash Primers).

606.6 Drying Times: The set-to-touch, dry-hard, dry-to-touch, and dry-to-recoat times of a coating shall be determined by ASTM Designation D 1640-95, "Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature, " (see Section 8-3-240 and 241, Quick-Dry Enamel and Quick-Dry Primer, Sealer, and Undercoater). The tack-free time of a quick-dry enamel coating shall be determined by the Mechanical Test Method of ASTM Designation D 1640-95.

606.7 Surface Chalkiness: The chalkiness of a surface shall be determined using ASTM Designation D 4214-98, "Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films," (see Section 8-3-252, Specialty Primer, Sealer, and Undercoater).

606.8 Exempt Compounds – Siloxanes: The quantity of cyclic, branched, or linear completely methylated siloxanes shall be analyzed by the Manual of Procedures, Volume III, Laboratory Method 43: "Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials," (see Section 8-3-261, Volatile Organic Compounds).

606.9 Exempt Compounds – Parachlorobenzotrifluoride (PCBTF): The quantity of parachlorobenzotrifluoride shall be analyzed by the Manual of Procedures, Volume III, Laboratory Method 41, "Determination of Volatile Organic Compounds in Solvent-Based Coatings and Related Materials Containing Parachlorobenzotrifluoride (see Section 8-3-261, Volatile Organic Compound).

606.10 Exempt Compounds – Methyl Acetate: The quantity of methyl acetate shall be determined by ASTM Method D-6133-00: "Standard Test Method for Acetone, PCBTF, Methyl Acetate or t-Butyl Acetate Content of Solvent-Reducible and Water Reducible Paints, Coatings, Resins, and Raw Materials by Direct Injection Into a Gas Chromatograph." (see Section 8-3-261, Volatile Organic Compound).

(Adopted November 21, 2001)

REGULATION 8
ORGANIC COMPOUNDS
RULE 4
GENERAL SOLVENT AND SURFACE COATING OPERATIONS

INDEX

REGULATION 8
ORGANIC COMPOUNDS
RULE 4
GENERAL SOLVENT AND SURFACE COATING OPERATIONS

8-4-100 GENERAL

8-4-101 **Description:** The purpose of this Rule is to limit emissions of volatile organic compounds from the use of solvents and surface coatings in any operation other than those specified by other Rules of this Regulation 8. The provisions of this Rule shall apply, but are not limited to, model making, printed circuit board manufacturing and assembly, electrical and electronic component manufacturing, surface coating of test panels, training facilities where the application of coating is for training purposes, stencil coatings, low usage coating activities exempt from other Regulation 8 Rules, coatings specifically exempt from other Regulation 8 Rules or solvent usage not specified by other Regulation 8 Rules.

(Amended 3/17/82; 5/15/96; 10/16/02)

8-4-110 **Deleted May 15, 1996**

8-4-111 **Deleted December 5, 1990**

8-4-112 **Deleted May 15, 1996**

8-4-113 **Exemption, Specified Operations:** This Rule shall not apply to operations that are subject to the requirements of other Rules of this Regulation 8, or which comply with appropriate limitations of those Rules prior to their effective dates.

8-4-114 **Exemption, Aerosol Cans:** The provisions of this Rule shall not apply to surface coating operations using non-refillable aerosol containers. Such coating is subject to the provisions of Regulation 8, Rule 49 or to the California Air Resources Board aerosol coating product regulation found in Title 17 of the California Code of Regulations, beginning at Section 94520.

(Adopted 6/20/90; Amended 10/16/02)

8-4-115 **Exemption, Film Cleaners:** This rule shall not apply to film cleaning operations that use 1,1,1-trichloroethane exclusively.

(Adopted May 15, 1996)

8-4-116 **Limited Exemption, Specific Surface Preparation and Cleaning Operations:** The surface preparation standards in Section 8-4-313 shall not apply to (i) the surface preparation of electrical and electronic components, precision optics, or numismatic dies; (ii) stripping of cured inks, coatings and adhesives or cleaning of resin, coating, ink and adhesive mixing, molding and application equipment; or, (iii) surface preparation associated with research and development operations; medical device or pharmaceutical manufacturing operations; performance testing to determine coating, adhesive or ink performance; or testing for quality control or quality assurance purposes.

(Adopted October 16, 2002)

8-4-117 **Limited Exemption, Operations Subject to Specific Rules:** The surface preparation standards in Section 8-4-313 shall not apply to surface preparation of material subject to the following Regulation 8 surface coating rules or made subject to Rule 4 by specific exemption or reference in any of the following rules:

117.1 Rule 3: Architectural Coating
117.2 Rule 11: Metal Container, Closure and Coil Coating
117.3 Rule 12: Paper, Fabric and Film Coating
117.4 Rule 13: Light and Medium Duty Motor Vehicle Assembly Plants
117.5 Rule 14: Surface Coating of Metal Furniture and Large Appliances
117.6 Rule 19: Surface Coating of Miscellaneous Metal Parts and Products
117.7 Rule 20: Graphic Arts Printing and Coating Operations
117.8 Rule 23: Coating of Flat Wood Paneling and Wood Flat Stock
117.9 Rule 26: Magnet Wire Coating Operations
117.10 Rule 29: Aerospace Assembly and Component Coating Operations

117.11 Rule 30: Semiconductor Wafer Fabrication Operations
117.12 Rule 31: Surface Coating of Plastic Parts and Products
117.13 Rule 32: Wood Products Coating
117.14 Rule 35: Coating, Ink and Adhesive Manufacturing
117.15 Rule 38: Flexible and Rigid Disc Manufacturing
117.16 Rule 43: Marine Vessel Coating
117.17 Rule 45: Motor Vehicle and Mobile Equipment Coating Operations
117.18 Rule 50: Polyester Resin Operations

(Adopted October 16, 2002)

8-4-118 **Limited Exemption, Production Machinery:** Until June 1, 2004, moving and working surfaces of machinery used for product development and in production are not required to comply with the surface preparation standards in Section 8-4-313.

(Adopted October 16, 2002)

8-4-200 **DEFINITIONS**

8-4-201 **Deleted May 15, 1996**
8-4-202 **Deleted May 15, 1996**
8-4-203 **Deleted May 15, 1996**
8-4-204 **Deleted May 15, 1996**
8-4-205 **Deleted May 15, 1996**
8-4-206 **Organic Solvents:** Organic liquids which are used as diluents, thinners, dissolvers, viscosity reducers, cleaning agents, or for other similar uses, but does not include those used as fuel, antiseptics or anesthetics.

(Renumbered March 17, 1982)

8-4-207 **Surface Coating:** Any paint, lacquer, varnish, ink, adhesive or similar material.

(Renumbered March 17, 1982)

8-4-208 **Deleted May 15, 1996**
8-4-209 **Deleted May 15, 1996**
8-4-209 **Deleted May 15, 1996**
8-4-210 **Deleted May 15, 1996**
8-4-211 **Key System Operating Parameter:** An air pollution abatement equipment operating parameter, such as temperature, flow rate or pressure, that indicates operation of the abatement equipment within manufacturer specifications, and compliance with the standards of this regulation.

(Adopted 6/1/94; Amended 5/15/96)

8-4-212 **Solvent Cleaning Operation:** The removal of uncured adhesives, inks, coatings, and contaminants including: dirt, soil, and grease from parts, products, tools, machinery, equipment, and general work areas.

(Adopted May 15, 1996)

8-4-213 **Source:** Any article, machine, equipment, operation, contrivance or related groupings of such which may produce and/or emit air pollutants as specified by the permit to operate.

(Adopted May 15, 1996)

8-4-214 **Volatile Organic Compound (VOC):** Any organic compound of carbon (excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate) which would be emitted during use of a solvent or other material.

214.1 For purposes of calculating VOC content of a coating, any water or any of the following non-precursor organic compounds:

acetone
methyl acetate
parachlorobenzotrifluoride (PCBTF)
cyclic, branched or linear, completely methylated siloxanes (VMS)

shall not be considered part of the coating.

214.2 For the purposes of calculating the VOC content of cleanup and surface preparation solvent, any water or the non-precursor organic compounds listed

in subsection 8-4-214.1, above, shall be considered part of the volume of the solvent but shall not be considered part of the VOC content of the solvent.

(Adopted 5/15/96; Amended 10/16/02)

8-4-215 **Printed Circuit Board Manufacturing and Assembly:** A printed circuit board is an electronic component designed for interconnecting other electronic components. It consists of a deposited conductive material on an insulating surface. When additional components are added to the printed circuit board, it is known as an assembly.

(Adopted May 15, 1996)

8-4-216 **Test Panel:** A panel used to evaluate coating performance.

(Adopted May 15, 1996)

8-4-217 **Training Facility:** Any facility which applies coatings for training purposes without receiving compensation for the coating application.

(Adopted May 15, 1996)

8-4-218 **Stencil Coatings:** Coatings that are applied by template in order to add designs, letters and/or numbers to the products.

(Adopted May 15, 1996)

8-4-219 **Model Making:** A prototype or product design that is used as a pattern.

(Adopted May 15, 1996)

8-4-220 **Surface Preparation:** The cleaning of surfaces prior to coating, further treatment, sale, or intended use. Solvent cleaning operations subject to and in compliance with Regulation 8, Rule 16: Solvent Cleaning Operations, are not subject to this Rule.

(Adopted October 16, 2002)

8-4-221 **Approved Emission Control System:** A system for reducing emissions to the atmosphere, consisting of an abatement device and a collection system, which achieves the abatement efficiency specified in the applicable standards at all times during the operation and meets the requirements of Regulation 2, Rule 1.

(Adopted October 16, 2002)

8-4-222 **Electrical and Electronic Components**: Components and assemblies of components that generate, convert, transmit, or modify electrical energy. Electrical and electronic components include, but are not limited to, wires, windings, stators, rotors, magnets, contacts, relays, printed circuit boards, printed wire assemblies, wiring boards, integrated circuits, resistors, capacitors and transistors. Cabinets in which electrical and electronic components are housed are not considered electrical and electronic components.

(Adopted October 16, 2002)

8-4-223 **Precision Optics:** The optical elements used in electro-optical devices that are designed to sense, detect, or transmit light energy, including specific wavelengths of light energy and changes of light energy levels.

(Adopted October 16, 2002)

8-4-224 **Medical Device:** An instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent or other similar article, including any component or accessory that is, (i) intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of diseases, or (ii) is intended to affect the structure or any function of the body, or (iii) is defined in the National Formulary or the United States Pharmacopoeia or any supplement to it.

(Adopted October 16, 2002)

8-4-225 **Medical Device and Pharmaceutical Manufacturing Operations:** Medical devices; pharmaceutical products; and associated manufacturing and product handling equipment and material, work surfaces, maintenance tools and room surfaces that are subject to US FDA current Good Manufacturing/Laboratory Practice, or CDC/NIH guidelines for biological disinfection of surfaces.

(Adopted October 16, 2002)

8-4-226: **Pharmaceutical Products:** A preparation or compound, which includes any drug, analgesic, decongestant, antihistamine, cough suppressant, vitamin, mineral or herb supplement intended for human or animal consumption and used to cure, mitigate or treat disease or improve or enhance health.

(Adopted October 16, 2002)

8-4-300 **STANDARDS**

8-4-301 **Deleted May 15, 1996**

8-4-302 **Solvents and Surface Coating Requirements:**. A person shall not use solvents or apply surface coatings unless one or more of the following requirements are satisfied:

302.1 A person shall not emit more than 4,533 kg (5 tons) of volatile organic compounds (VOC) from any source during any calendar year; or

302.2 Emissions are controlled by an approved emission control system with an overall abatement efficiency of 85% on a mass basis. If reduction is achieved by incineration, at least 90% by weight of the organic compound emissions shall be oxidized to carbon dioxide; or

302.3 The coating operation uses a coating with a VOC content less than or equal to 420 grams per liter (3.5 lb/gal) of coating as applied.

(Amended 3/17/82; 6/1/94; 5/15/96; 10/16/02)

8-4-303 **Deleted June 1, 1994**

8-4-304 **Deleted May 15, 1996**

8-4-310 **Deleted May 15, 1996**

8-4-311 **Deleted May 15, 1996**

8-4-312 **Solvent Evaporative Loss Minimization:** Unless emissions to the atmosphere are controlled by an approved emission control system with an overall abatement efficiency of at least 85%, any person using organic solvent for surface preparation and cleanup or any person mixing, using or disposing of organic solvent:

312.1 Shall use closed containers for the storage or disposal of cloth or paper used for solvent surface preparation and cleanup.

312.2 Shall not use organic solvent for the cleanup of spray equipment, including paint lines, with a VOC content in excess of 50 g/l (0.42 lb/gal) unless either, (i) solvent is pressurized though spray equipment with atomizing air off or dispensed from a small non-atomizing container, and collected and stored in a closed container until recycled or properly disposed of offsite, or (ii) a spray gun washer subject to and in compliance with the requirements of Regulation 8, Rule 16 is used.

312.3 Shall close containers of solvent or coating when not in use.

(Adopted 5/15/96; Amended 10/16/02)

8-4-313 **Surface Preparation Standards:** Effective June 1, 2003, no person shall use a solvent with a VOC content that exceeds 50 g/l (0.42 lbs/gal), as applied, for surface preparation in any operation subject to this Rule unless emissions to the atmosphere are controlled to an equivalent level by an approved emission control system with an overall abatement efficiency of at least 85 percent.

(Adopted October 16, 2002)

8-4-500 **MONITORING AND RECORDS**

8-4-501 **Recordkeeping Requirements:** Any person using coatings or solvents subject to this Rule shall:

501.1 Maintain a current list of coatings and solvents in use that provide all of the data necessary to evaluate compliance, such as VOC content and mix ratios of coatings, catalysts and reducers and density and VOC content of solvent.

501.2 Record on an annual basis the quantity of coating applied.

501.3 Record the air pollution abatement equipment key system operating parameters on a daily basis.

501.4 Record, on a monthly basis, coating usage for coatings subject to subsection 8-4-302.3 and solvents used for surface preparation and clean up.

501.5 Records shall be retained and available for inspection by the APCO for the previous 24 -month period.

(Adopted 6/1/94; Amended 5/15/96; 10/16/02)

8-4-502 **Burden of Proof**: The burden of proof of eligibility for exemption pursuant to Section 8-4-115 is on the applicant. Persons seeking an exemption shall maintain adequate records and furnish them to the APCO upon request.

(Adopted May 15, 1996)

8-4-600 MANUAL OF PROCEDURES

8-4-601 Deleted June 1, 1994

8-4-602 Determination of Emissions: Emissions of volatile organic compounds as specified in Section 8-4-302, 312 and/or 313 shall be measured as prescribed by any of the following methods 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule. Emissions resulting from the drying of products for the first 12 hours after their removal from any operation, and emissions from clean-up solvent, shall be included when determining compliance with this Rule.

(Amended 3/17/82; 6/1/94; 5/15/96; 10/16/02)

8-4-603 Analysis of Samples: Samples of volatile organic compounds as specified in Section 8-4-302 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 21 or 22. Samples of volatile organic compounds as specified in Section 8-4-312 and/or 313 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 31 for the determination of VOC.

(Adopted 6/1/94; Amended 5/15/96; 10/16/02)

8-14-604 Analysis of Exempt Compounds: Samples of PCBTF, VMS, and methyl acetate shall be analyzed by the Manual of Procedures, Volume III, Method 41, 43 and by ASTM Method D-6133-00, respectively.

(Adopted October 16, 2002)

REGULATION 8
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REGULATION 8
ORGANIC COMPOUNDS
RULE 5
STORAGE OF ORGANIC LIQUIDS

(Adopted January 1, 1978)

8-5-100 GENERAL

8-5-101 Description: The purpose of this Rule is to limit emissions of organic compounds from storage tanks.

Note: New storage tanks may also be subject to Regulation 10 and storage tanks located at bulk plants may also be subject to the requirements of Regulation 8, Rule 6 or Rule 33.

(Amended 9/4/85; 5/4/88; 1/20/93)

8-5-110 Exemptions: This Rule does not apply to emissions from the following sources:

110.1 Storage tanks having a capacity of less than 1.0 m^3 (264 gal).

110.2 Any storage tank installed prior to January 4, 1967, which is not used for storage of gasoline to be dispensed to internal combustion engine fuel tanks, and is either of a capacity of less than 7.6 m^3 (2,008 gal), or an underground tank with an offset fill line.

110.3 Any above ground gasoline tank of 7.6 m^3 (2,008 gal) or less capacity installed and in service prior to January 9, 1976, and equipped with a submerged fill pipe.

(Amended 5/4/88; 1/20/93; 11/27/02)

8-5-111 Limited Exemption, Tank Removal From and Return to Service: The requirements of Sections 8-5-304, 305, 306, 307 and 320 shall not apply to storage tanks during or after tank decommissioning, and shall not apply during temporary removal from service provided that the following is accomplished:

111.1 The operator provides notice to the APCO. This notification shall identify the specific requirement for which an exemption is necessary and explain how the planned or performed activities necessarily prevent compliance with those requirements. The notification requirement may be satisfied in any one of the following ways:

1.1 Three days prior to such work being done, written notice is received by the APCO;

1.2 Telephone notification is made to the APCO prior to such work being done, and written notice is received by the APCO within three days after such work has been done.

111.2 The tank is in compliance prior to notification. The written notice shall contain a statement that, to the best knowledge of the person providing notification, the tank is in compliance, and the basis for that knowledge.

111.3 When the floating roof is resting on the leg supports, the process of filling, emptying, and refilling shall be continuous and shall be accomplished as rapidly as possible.

111.4 Vapor recovery shall be used on tanks so equipped during filling and emptying procedures.

111.5 Emissions shall be minimized during the period of exemption. As much product as possible shall be drained before any hatches are opened, and tank degassing equipment and an associated approved emission control system shall be connected and operating as soon as possible.

111.6 Written notice is not required when returning a tank to service after the above listed work has been completed.

111.7 The requirements of Section 8-5-328 are satisfied.

(Amended 1/20/93; 12/15/99; 11/27/02)

8-5-112 Limited Exemption, Tanks in Operation: The requirements of Sections 8-5-304, 305, 306, 307 and 8-5-320 shall not apply to storage tanks during preventative maintenance of a vapor control device, tank roof, roof fitting or tank seal; during primary seal inspection; or during removal and installation of a secondary seal if the following is accomplished:

112.1 The operator shall provide notification to the APCO. This notification shall identify the affected tank and the specific requirement for which an exemption is necessary, shall explain how the planned or performed activities necessarily prevent compliance with those requirements, and shall describe the measures to be taken to minimize emissions. For secondary seal installations, the type of installed seal shall be specified. The notification requirement may be satisfied as follows:

1.1 Three days prior to such work being done, written notice is received by the APCO; or

1.2 Except for secondary seal replacements, which are subject to subsection 8-5-112.1.1, telephone notification is made to the APCO prior to such work being done, and written notice is received by the APCO within three days after such work has been done.

112.2 The tank is in compliance with all District Regulations prior to the commencement of the work and is certified in accordance with Section 8-5-404.

112.3 Product shall be moved neither in nor out of the storage tank and emissions shall be minimized.

112.4 The time of exemption allowed under this Section does not exceed 7 days.

(Adopted 9/4/85; Amended 5/4/88; 1/20/93; 12/15/99; 11/27/02)

8-5-113 **Deleted May 4, 1988**

8-5-114 **Deleted May 4, 1988**

8-5-115 **Deleted May 4, 1988**

8-5-116 **Exemption, Gasoline Storage Tanks at Gasoline Dispensing Facilities:** The provisions of this Rule shall not apply to any underground gasoline storage tank located at a gasoline dispensing facility subject to the requirements of Regulation 8, Rule 7.

(Adopted January 20, 1993)

8-5-117 **Exemption, Low Vapor Pressure:** The provisions of this Rule, except for Section 8-5-307, shall not apply to tanks storing organic liquids with a true vapor pressure of less than or equal to 25.8 mm Hg (0.5 psia) as determined by Sections 8-5-602 or 604.

(Adopted 1/20/93; Amended 11/27/02)

8-5-200 **DEFINITIONS**

8-5-201 **Abatement Efficiency:** A comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without an approved emission control system, expressed as a percentage. Baseline emissions shall be calculated using the criteria in API Bulletin 2518.

(Amended 1/20/93; 11/27/02)

8-5-202 **Storage Tank:** Any container, reservoir, or tank used for the storage of organic liquids, excluding tanks which are permanently affixed to mobile vehicles such as railroad tank cars, tanker trucks or ocean vessels.

(Adopted 9/4/85; Amended 11/27/02)

8-5-203 **Deleted November 27, 2002**

8-5-204 **Organic Liquid:** Any organic compound that exists as a liquid at actual conditions of use or storage.

(Adopted 9/4/85; Amended 1/20/93)

8-5-205 **Gasoline:** Petroleum distillates used as motor fuel with a Reid vapor pressure greater than 4.0 psia.

(Adopted 9/4/85; Amended 5/4/88)

8-5-206 **Gas Tight:** A concentration of organic compounds, measured 1 cm or less from any source, of less than 100 ppm (expressed as methane) above background, for any point or item, except for pressure vacuum valves and atmospheric pressure relief devices; and less than 500 ppm (expressed as methane) above background, for pressure vacuum valves and atmospheric pressure relief devices only.

(Adopted 5/4/88; Amended 1/20/93; 11/27/02)

8-5-207 **Approved Emission Control System:** A system for reducing emissions to the atmosphere that consists of a collection system and an abatement device, which is

approved in writing by the APCO and achieves the overall abatement efficiency specified in the applicable standards section.

(Adopted 1/20/93; Amended 11/27/02)

8-5-208 **Degassing:** The process of removing organic gases from a tank.

(Adopted January 20, 1993)

8-5-209 **External Floating Roof Tank:** An open top tank with a storage vessel cover consisting of a double deck or pontoon single deck which rests upon and is supported by the liquid being contained.

(Adopted January 20, 1993)

8-5-210 **Internal Floating Roof Tank:** A tank with a floating cover or roof which rests upon or is floated upon the liquid being contained, and which also has a fixed roof on top of the tank shell to shield the floating roof from wind, rain and other elements. An external floating roof tank which is retrofitted with a geodesic dome or other fixed roof shall be considered to be an internal floating roof tank for the purposes of this rule.

(Adopted 1/20/93; Amended 11/27/02)

8-5-211 **True Vapor Pressure:** The vapor pressure of a liquid at storage temperature.

(Adopted 1/20/93; Amended 11/27/02)

8-5-212 **Organic Compound:** Any compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate.

(Adopted January 20, 1993)

8-5-213 **Viewport:** An accessible opening in the fixed roof of an internal floating roof tank that measures at least 0.75 meters (30 inches) on each side or at least 0.75 meters (30 inches) in diameter.

(Adopted January 20, 1993)

8-5-214 **Gauge Float**: A device to indicate the level of liquid within a tank. The float rests on the liquid surface inside a well in the tank.

(Adopted December 15, 1999)

8-5-215 **Guidepole:** An anti-rotation device that is fixed to the top and bottom of a tank, passing through a well in a floating roof. Guidepoles may be solid or be equipped with slots or holes for gauging purposes.

(Adopted December 15, 1999)

8-5-216 **Zero Gap Pole Wiper Seal:** A seal with no gap exceeding 0.06 inches between the guidepole or gauge well and pole wiper seal.

(Adopted December 15, 1999)

8-5-217 **Decommissioning:** The removal of all organic liquid and gases from a storage tank with the intent of no longer using the tank for storage of organic liquids or gases.

(Adopted November 27, 2002)

8-5-218 **Stock Change:** The removal of organic liquids from a tank prior to refilling the tank with a different organic liquid.

(Adopted November 27, 2002)

8-5-219 **Tank Cleaning:** The process of washing or rinsing the interior of a storage tank, or removing sludge, or rinsing liquid from a storage tank.

(Adopted November 27, 2002)

8-5-220 **Temporary Removal From Service:** The removal of organic liquid from a storage tank for tank cleaning, stock change, tank repair, roof repair, or removal of contaminated stock, followed by return to service.

(Adopted November 27, 2002)

8-5-221 **Liquid Balancing:** The process of reducing the vapor pressure of the contents of a tank by adding lower-vapor pressure liquid without breaking tank vacuum, and, for floating roof tanks, without landing the floating roof on its supports.

(Adopted November 27, 2002)

8-5-300 **STANDARDS**

8-5-301 **Storage Tanks Control Requirements:** A person shall not store organic liquid in any storage tank unless such tank is equipped with a vapor loss control device that is specified by the table below for the tank capacity, or for a higher capacity, and for the true vapor pressure of the tank organic liquid contents, or for a higher true vapor pressure.

Tank Capacity	True Vapor Pressure of Tank Organic Contents		
	>0.5 to ≤1.5 psia	>1.5 to <11 psia	≥ 11 psia
≥1.0 m^3 to ≤37.5 m^3 (≥264 gallons to ≤9,906 gallons), aboveground only	Submerged fill pipe, internal floating roof, external floating roof, or approved emission control system	Pressure vacuum valve, internal floating roof, external floating roof, or approved emission control system	Pressure tank or approved emission control system
>37.5 m^3 to <75 m^3 (>9,906 gallons to <19,803 gallons), aboveground only	Submerged fill pipe, internal floating roof, external floating roof, or approved emission control system	Pressure vacuum valve, internal floating roof, external floating roof, or approved emission control system	Pressure tank or approved emission control system
≥75 m^3 to <150 m^3 (≥19,803 gallons to <39,626 gallons)	Submerged fill pipe, internal floating roof, external floating roof, or approved emission control system	Internal floating roof, external floating roof, or approved emission control system	Pressure tank or approved emission control system
≥150 m^3 (≥39,626 gallons)	Internal floating roof, external floating roof, or approved emission control system	Internal floating roof, external floating roof, or approved emission control system	Pressure tank or approved emission control system

(Amended, Renumbered 9/4/85; Amended 5/4/88; 1/20/93; 12/15/99; Amended, Renumbered 11/27/02)

8-5-302 **Requirements for Submerged Fill Pipes:** A submerged fill pipe must meet either of the following requirements:

302.1 Where the tank is filled from the top, the end of the discharge pipe or nozzle must be totally submerged when the liquid level is 15 cm (6 in.) from the bottom of the tank.

302.2 Where the tank is filled from the side, the discharge pipe or nozzle must be totally submerged when the liquid level is 46 cm (18 in.) from the bottom of the tank.

(Adopted 9/4/85; Amended, Renumbered 11/27/02)

8-5-303 **Requirements for Pressure Vacuum Valves:** A pressure vacuum valve must meet the following requirements:

303.1 The pressure vacuum valve must be set to either a pressure within 10% of the maximum allowable working pressure of the tank, or at least 25.8 mm Hg (0.5 psig) pressure.

303.2 The pressure vacuum valve must be properly installed, properly maintained, and in good operating order, and must remain in a gas tight condition except when operating pressure exceeds the valve set pressure.

(Amended 9/4/85; 5/4/88; 1/20/93; Amended, Renumbered, 11/27/02)

8-5-304 **Requirements for External Floating Roofs:** An external floating roof must meet the following requirements:

304.1 The floating roof fittings must meet the requirements of Section 8-5-320.

304.2 The floating roof must be equipped with a primary seal that meets the requirements of Section 8-5-321.

304.3 The floating roof must be equipped with a secondary seal that meets the requirements of Section 8-5-322.

304.4 The floating roof must rest on the surface of the liquid tank contents, must be properly installed and maintained, and must be in good operating condition. There shall be no liquid tank contents on top of either the primary or secondary seal, or on top of the floating roof (this requirement does not apply to liquid which clings to the inside tank walls as the tank is drained, or to liquid which drips from the tank walls onto the seals).

(Amended, Renumbered 9/4/85; Amended 5/4/88; 1/20/93; Amended, Renumbered 11/27/02)

8-5-305 **Requirements for Internal Floating Roofs:** An internal floating roof must meet the following requirements:

305.1 For a tank with seals installed on or before February 1, 1993, the tank must be equipped with one of the following:

1.1 A liquid mounted primary seal, mounted in full contact with the liquid in the annular space between the tank shell and floating roof,

1.2 A metallic shoe primary seal, or

1.3 A vapor mounted primary and a secondary seal

If sections of seal with a total length equal to or greater than the diameter of the tank are replaced at one time, or if sections of seal with a total cumulative length equal to or greater than 50% of the total seal circumference are replaced over time, then the seal shall be considered to be newly installed and subject to subsection 8-5-305.2.

305.2 For a tank with seals installed after February 1, 1993, the tank must be equipped with a liquid mounted or metallic shoe primary seal that meets the requirements of Section 8-5-321 and a secondary seal that meets the requirements of Section 8-5-322.

305.3 Internal floating roof tanks which are placed into service or de-gassed after February 1, 1993 shall be equipped with at least 3 viewing ports in the fixed roof of the tank. This requirement shall not apply to external floating roof tanks retrofitted with domes or other fixed roofs after February 1, 1993, as long as the dome consists of translucent panels through which sufficient light passes to allow inspection of the floating roof seal.

305.4 The floating roof fittings must meet the requirements of Section 8-5-320.

305.5 The floating roof must rest on the surface of the liquid tank contents, must be properly installed and maintained, and must be in good operating condition. There shall be no liquid tank contents on top of either the primary or secondary seal, or on top of the floating roof (this requirement does not apply to liquid which clings to the inside tank walls as the tank is drained, or to liquid which drips from the tank walls onto the seals).

(Amended, Renumbered 9/4/85; Amended 5/4/88; 1/20/93; Amended, Renumbered 11/27/02)

8-5-306 **Requirements for Approved Emission Control Systems:** An Approved Emission Control System must be gas tight. It must also provide an abatement efficiency of at least 95% by weight, except as allowed by subsection 8-5-328.1.2.

(Amended 1/20/93; Amended, Renumbered 11/27/02)

8-5-307 **Requirements for Pressure Tanks and Blanketed Tanks:** A pressure tank must be maintained in a gas tight condition and must maintain working pressures sufficient at all times to prevent organic vapor or gas loss to the atmosphere. Effective July 1, 2003, tanks blanketed with organic gases other than natural gas shall be maintained in a gas tight condition.

(Adopted 9/4/85; Amended 5/4/88; 1/20/93; Amended, Renumbered 11/27/02)

8-5-310 **Deleted May 4, 1988**

8-5-311 **Deleted November 27, 2002**

8-5-312 **Deleted January 20, 1993**

8-5-313 **Deleted January 20, 1993**

8-5-314 **Deleted January 20, 1993**

8-5-320 **Tank Fitting Requirements:** The fittings on any floating roof storage tank subject to Section 8-5-304 or 305 shall meet the following conditions:

320.1 Deleted November 27, 2002.

320.2 All openings through the floating roof, except pressure-vacuum valves and vacuum breaker vents, shall provide a projection below the liquid surface to prevent belching of liquid and reduce escaping organic vapors.

320.3 All openings through the floating roof, except floating roof legs, shall be equipped with a gasketed cover, seal or lid, which shall at all times be in a closed position and shall meet either of the following requirements, as applicable, except as provided in subsections 8-5-320.4, 320.5 or 320.6.

3.1 The gasketed cover, seal or lid shall have no measurable gap exceeding 0.32 cm (1/8 in.), except when the opening is in use.

3.2 For inaccessible openings on internal floating roof tanks, there shall be no visible gaps as viewed from the fixed roof manway or viewports, except when the opening is in use.

320.4 Solid sampling or gauging wells, and similar fixed projections through a floating roof such as an anti-rotational pipe, shall meet the following conditions:

4.1 The well shall provide a projection below the liquid surface.

4.2 The well shall be equipped with a cover, seal or lid, which shall at all times be in a closed position with no gap exceeding 0.32 cm (1/8 in.), except when the well is in use.

4.3 The gap between the well and the roof shall be added to the gaps measured to determine compliance of the secondary seal and in no case shall exceed 1.3 cm (1/2 in.).

320.5 Slotted sampling or gauging wells, and similar fixed projections through a floating roof such as an anti-rotational pipe, shall meet the following conditions:

5.1 The well shall provide a projection below the liquid surface.

5.2 The well shall be equipped with the following: a sliding cover, a cover gasket, a pole sleeve, pole wiper and an internal float and float wiper designed to minimize the gap between the float and the well, provided that the gap shall in no case exceed 1/2 in., or shall be equipped with a well gasket, a zero gap pole wiper seal and a pole sleeve that projects below the liquid surface.

5.3 The gap between the well and the roof shall be added to the gaps measured to determine compliance of the secondary seal and in no case shall exceed 1.3 cm (1/2 in.).

320.6 Any emergency roof drain shall be provided with a slotted membrane fabric cover, or equivalent, that covers at least 90% of the area of the opening.

(Amended 9/4/85; 5/4/88; 1/20/93; 12/15/99; 11/27/02)

8-5-321 **Primary Seal Requirements:** A person shall not operate a storage tank equipped with a primary seal subject to the requirements of Section 8-5-304 or 305 unless such tank meets the following conditions:

321.1 There shall be no holes, tears, or other openings in the primary seal fabric which allow the emission of organic vapors.

321.2 The seal shall be either a metallic shoe or a liquid mounted type, except as provided in subsection 8-5-305.1.3.

321.3 Metallic-shoe-type seals shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 61 cm (24 in.) for external floating roofs and 18 inches for internal floating roofs above the stored liquid surface.

3.1 The geometry of the shoe shall be such that the maximum gap between the shoe and the tank shell is no greater than double the gap allowed by the seal gap criteria for a length of at least 46 cm (18 in.) in the vertical plane above the liquid surface.

3.2 For welded tanks, no gap between the tank shell and the primary seal shall exceed 3.8 cm (1-1/2 in.). No continuous gap greater than 0.32 cm (1/8 in.) shall exceed 10% of the circumference of the tank. The cumulative length of all primary seal gaps exceeding 1.3 cm (1/2 in.) shall be not more than 10% of the circumference, and the cumulative length of all primary seal gaps exceeding 0.32 cm (1/8 in.) shall be not more than 40% of the circumference.

3.3 For riveted tanks, no gap between the tank shell and the primary seal shall exceed 6.4 cm (2-1/2 in.). The cumulative length of all primary seal gaps exceeding 3.8 cm (1-1/2 in.) shall be not more than 10% of the circumference.

321.4 For resilient-toroid-seal equipped tanks, no gap between the tank shell and the primary seal shall exceed 1.3 cm (1/2 in.). The cumulative length of all gaps exceeding 0.32 cm (1/8 in.) shall be not more than 5% of the circumference.

(Amended 1/20/93; 12/15/99; 11/27/02)

8-5-322 **Secondary Seal Requirements:** A person shall not operate a storage tank equipped with a secondary seal subject to the requirements of Sections 8-5-304 or 305, unless such tank meets the following conditions:

322.1 There shall be no holes, tears, or other openings in the secondary seal fabric which allow the emission of organic vapors.

322.2 The secondary seal shall allow easy insertion of probes up to 3.8 cm (1-1/2 in.) in width in order to measure gaps in the primary seal.

322.3 No gap between the tank shell and the secondary seal shall exceed 1.3 cm (1/2 in.). The cumulative length of all secondary seal gaps exceeding 0.32 cm (1/8 in.) shall be not more than 5% of the circumference of the tank.

322.4 For riveted tanks, the secondary seal shall consist of at least two sealing surfaces, such that the sealing surfaces prevent the emission of organic compounds around the rivets. Serrated sealing surfaces are allowable if the length of serration does not exceed 15.2 cm (6 in.).

322.5 For welded external floating roof tanks with seals installed after September 4, 1985 or welded internal floating roof tanks with seals installed after February 1, 1993, no gap between the tank shell and the secondary seal shall exceed 1.5 mm (0.06 in.). The cumulative length of all secondary seal gaps exceeding 0.5 mm (0.02 in.) shall be not more than 5% of the circumference of the tank excluding gaps less than 5 cm (1.79 in.) from vertical weld seams. If sections of seal with a total length equal to or greater than the diameter of the tank are replaced at one time, or if sections of seal with a total cumulative length equal to or greater than 50% of the total seal circumference are replaced over time, then the seal shall be considered to be newly installed for the purpose of this section.

322.6 The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal.

(Amended 1/20/93; 11/27/02)

8-5-323 **Deleted January 20, 1993**

8-5-324 **Deleted January 20, 1993**

8-5-325 **Deleted January 20, 1993**

8-5-326 **Deleted May 4, 1988**

8-5-327 **Deleted May 4, 1988**

8-5-328 **Tank Degassing Requirements:**

328.1 For tanks larger than 75 m^3, the emissions of organic compounds resulting from degassing shall be controlled by one of the following methods:

1.1 Liquid Balancing in which the resulting organic liquid has a true vapor pressure less than 0.5 psia, or

1.2 An Approved Emission Control System which collects and processes all organic vapors and gases and has an abatement efficiency of at least 90% by weight. The system shall be operated until the concentration of organic compounds in the tank is less than 10,000 ppm expressed as methane.

328.2 For all tanks subject to this rule, tank degassing shall not commence after the District predicts an excess of the Federal or State Ambient Air Quality Standard for ozone for the following day, unless emissions resulting from degassing are controlled by one of the methods in subsection 8-5-328.1.1 or 328.1.2.

(Adopted 1/20/93; Amended 11/27/02)

8-5-329 **Deleted November 27, 2002**

8-5-330 **Deleted November 27, 2002**

8-5-400 **ADMINISTRATIVE REQUIREMENTS**

8-5-401 **Inspection Requirements for External Floating Roof Tanks:** Tanks subject to the requirements of Section 8-5-304 shall be inspected by the operator as follows:

401.1 The entire circumference of each primary and secondary seal shall be inspected for compliance with the requirements of Sections 8-5-321 and 8-5-322 twice per calendar year at 4 to 8 month intervals. If a new primary or secondary seal is installed, or if a primary or secondary seal is repaired, both

seals shall be inspected at the time of the seal installation or repair. Flexible wiper seals shall be inspected when the outer edge of the seal is curved upward.

401.2 Tank fittings shall be inspected for compliance with the requirements of Section 8-5-320 twice per calendar year at 4 to 8 month intervals.

(Amended 1/20/93; Amended, Renumbered 11/27/02)

8-5-402 **Inspection Requirements for Internal Floating Roof Tanks:** Tanks subject to the requirements of Section 8-5-305 shall be inspected by the operator as follows:

402.1 The entire circumference of each primary and secondary seal shall be inspected for compliance with the requirements of Sections 8-5-321 and 8-5-322. The time between inspections shall not exceed 10 years. If a new primary or secondary seal is installed, or if a primary or secondary seal is repaired, both seals shall be inspected at the time of the seal installation or repair. Flexible wiper seals shall be inspected when the outer edge of the seal is curved upward.

402.2 The entire circumference of the outermost seal (secondary seal where so equipped, or primary seal where no secondary seal is required) shall be visually inspected for compliance with the requirements of subsections 8-5-305.1, 8-5-305.2, 8-5-305.3, 8-5-321.1 and 8-5-322.1 twice per calendar year at 4 to 8 month intervals. Flexible wiper seals shall be inspected when the outer edge of the seal is curved upward.

402.3 Tank fittings shall be inspected for compliance with the requirements of Section 8-5-320 twice per calendar year at 4 to 8 month intervals. Standards involving gap measurements shall be checked whenever the tank roof is accessible, but need not be checked more frequently than twice per calendar year.

(Amended 1/20/93; Amended, Renumbered 11/27/02)

8-5-403 **Inspection Requirements for Pressure Vacuum Valves:** Tanks subject to the requirements of Section 8-5-303 shall be inspected for compliance with the requirements of Section 8-5-303 twice per calendar year at 4 to 8 month intervals.

(Adopted November 27, 2002)

8-5-404 **Certification:** Within 60 days of any inspection or source test required in Section 8-5-401, 402, 403 or 502, a report shall be submitted which certifies compliance with each individual requirement of these Sections.

(Amended, Renumbered 9/4/85; Amended 5/4/88; 1/20/93; 11/27/02)

8-5-405 **Information Required:** All reports relating to seal condition and gap measurements shall include the following information:

405.1 Date of inspection.

405.2 Actual gap measurements between the tank shell and seals, both the primary seal and the secondary seal, shall be measured around the full circumference of the tank.

405.3 Data, supported by calculations, showing whether or not the requirements of Sections 8-5-320, 321 and 322 are being met.

(Amended, Renumbered 9/4/85; Amended 5/4/88; 1/20/93)

8-5-410 **Deleted May 4, 1988**

8-5-500 **MONITORING AND RECORDS**

8-5-501 **Records:**

501.1 A person whose tanks are subject to this rule shall keep an accurate record of the type and amount of liquids stored, type of blanket gases used, and the true vapor pressure ranges of such liquids and gases. Effective January 1, 2003, these records shall be kept for at least 24 months.

501.2 For internal and external floating roof tanks, a person who replaces all or part of a primary or secondary seal shall keep an accurate record of the length of seal replaced and the date(s) on which replacement occurred. Effective January 1, 2003, these records shall be kept for at least 10 years.

(Amended 1/20/93; 11/27/02)

8-5-502 **Tank Degassing Annual Source Test Requirement:** Any person operating an Approved Emission Control System to comply with the requirements of subsection 8-5-328.1.2 shall test the system as prescribed in subsection 8-5-603.2.

(Adopted 1/20/93; Amended 11/27/02)

8-5-503 **Portable Hydrocarbon Detector:** Any instrument used for the measurement of organic compounds as specified by Sections 8-5-303.2, 306 and 307 shall be a combustible gas indicator that meets the specifications and performance criteria of and has been calibrated in accordance with EPA Reference Method 21 (40 CFR 60, Appendix A).

(Adopted 1/20/93; Amended 11/27/02)

8-5-600 **MANUAL OF PROCEDURES**

8-5-601 **Analysis of Samples, Reid Vapor Pressure**: Samples of organic compounds as specified in this Rule shall be analyzed for Reid Vapor Pressure as prescribed in the Manual of Procedures, Volume III, Lab Method 13.

(Amended 9/4/85; 5/4/88)

8-5-602 **Analysis of Samples, True Vapor Pressure:** Samples of organic compounds not listed in Table I shall be analyzed for true Vapor Pressure at the tank storage temperature as prescribed in the Manual of Procedures, Volume III, Lab Method 28.

(Adopted 9/4/85; Amended 5/4/88)

8-5-603 **Determination of Emissions:** Emissions of organic compounds shall be determined as follows:

603.1 Emissions of organic compounds as specified in Section 8-5-306 shall be measured as prescribed in the Manual of Procedures, Volume IV, ST-4.

603.2 Emissions of organic compounds as specified in subsection 8-5-328.1.2 shall be measured as prescribed in the Manual of Procedures, Volume IV, ST-7.

(Renumbered 9/4/85; Amended 1/20/93; 11/27/02)

8-5-604 **Determination of Applicability**: Table I shall be used to determine if a storage tank is subject to the requirements of this rule. For organic compounds not listed in Table I, refer to Sections 8-5-601 or 602.

(Adopted 9/4/85; Amended 5/4/88; 1/20/93)

8-5-605 **Pressure-Vacuum Valve Gas Tight Determination:** Determination of organic compound leak concentrations as specified by Sections 8-5-303.2, 306 and 307 shall be conducted by EPA Reference Method 21 (40 CFR 60, Appendix A).

(Adopted 1/20/93; Amended 11/27/02)

TABLE I

STORAGE TEMPERATURE VERSUS TRUE VAPOR PRESSURE (TVP)

	Density (lb/gal)	Reference Gravity API	IBP °F	Max. Temp. °F Not to Exceed 0.5 Psia TVP	1.5 Psia TVP
Crude Oils:*		-	-	-	-
San Joaquin Valley	-	-	390	249	-
Middle Distillates:					
Kerosene	-	42.5	350	195	250
Diesel	-	36.4	372	230	290
Gas Oil	-	26.2	390	249	310
Stove Oil	-	23	421	275	340
Jet Fuels:					
JP-1	-	43.1	330	165	230
JP-3	-	54.7	110	-	25
JP-4	-	51.5	150	20	68
JP-5	-	39.6	355	205	260
JP-7	-	44-50	360	205	260
Fuel Oil:					
No. 1	-	42.5	350	195	250
No. 2	-	36.4	372	230	290
No. 3	-	26.2	390	249	310
No. 4	-	23	421	275	340
No. 5	-	19.9	560	380	465
No. 6	-	16.2	625	450	-
Asphalts:					
60-100 pen.	-	-	-	490	550
120-150 pen.	-	-	-	450	500
200-300 pen.	-	-	-	360	420
Organic Compounds:					
Acetone	6.6	47	133	-	35
Acrylonitrile	6.8	41.8	173	30	62
Benzene	7.4	27.7	176	34	70
Carbon Disulfide	10.6	22.1	116	-	10
Carbon Tetrachloride	13.4	-	170	20	63
Chloroform	12.5	-	142	-	40
Cyclohexane	6.5	49.7	177	30	65
1,2 Dichloroethane	10.5	-	180	35	75
Ethyl Acetate	7.5	23.6	171	38	70
Ethyl Alcohol	6.6	47.0	173	55	85
Isopropyl Alcohol	6.6	47.0	181	62	95
Methyl Alcohol	6.6	47.0	148	30	62
Methyl Ethyl Ketone	6.7	44.3	175	30	70
Toluene	7.3	30	231	75	120
Vinylacetate	7.8	19.6	163	30	65

* True vapor pressure for crude oils should be determined from the specific crude slate.

REGULATION 8
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ORGANIC LIQUID BULK TERMINALS AND BULK PLANTS

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REGULATION 8
ORGANIC COMPOUNDS
RULE 6
ORGANIC LIQUID BULK TERMINALS AND BULK PLANTS
(Adopted January 24, 1979; Recodified September 5, 1979)

8-6-100 GENERAL

8-6-101 Description: The purpose of this Rule is to limit emissions of organic compounds as defined in Section 8-6-207 from transfer operations at non-gasoline organic liquid bulk terminals and bulk plants.

(Amended March 17, 1982; February 2, 1994)

8-6-110 Exemption, Low Vapor Pressure Organic Liquids: Until December 1, 1994, the requirements in this Rule shall not apply to loading or delivery of any organic liquid having a true vapor pressure less than 77.5 mmHg (1.5 psia). After December 1, 1994, the requirements of this Rule shall not apply to loading and delivery of any organic liquid having a true vapor pressure less than 25.8 mmHg (0.5 psia), as determined by the methods specified in Section 8-6-603 or 604.

(Amended February 2, 1994)

8-6-111 Exemption, Low Throughput: The vapor recovery requirements of subsection 8-6-302.1 do not apply when the total annual throughput of organic liquids with at least 77.5 mmHg (1.5 psia) true vapor pressure transferred into delivery vehicles only is less than 2,271 cubic meters (600,000 gallons) on a facilitywide basis.

(Amended February 2, 1994)

8-6-112 Deleted February 2, 1994

8-6-113 Deleted February 2, 1994

8-6-114 Exemption, Maintenance and Repair: The requirements of Section 8-6-306 shall not apply to spills resulting from maintenance or repair operations provided proper operating practices are employed to minimize evaporation of organic compounds into the atmosphere.

8-6-115 Exemption, Bulk Gasoline Distribution Facilities: Gasoline bulk terminals and bulk plants are not subject to the requirements of this rule. Such facilities are subject to the provisions of Regulation 8, Rule 33 or 39.

(Adopted November 30, 1983; Amended February 2, 1994)

8-6-116 Exemption, Small Transportable Containers: The requirements of subsection 8-6-302.2 shall not apply to loading organic liquids into any transportable container with a capacity less than 0.114 cubic meters (30 gallons).

(Adopted February 2, 1994)

8-6-117 Exemption, Liquefied Organic Gases: The requirements of this rule do not apply to transfer operations involving liquefied organic gases such as liquefied petroleum gas (LPG) and halogenated gases. (Adopted February 2, 1994)

8-6-200 DEFINITIONS

8-6-201 Bulk Plant: Until December 1, 1994, any storage and distribution facility that receives organic liquid by pipeline, railcar, and/or delivery vehicle; stores it in stationary tanks; and/or mixes it in blending tanks; and/or loads it into delivery vehicles or transportable containers, for delivery to distributors, marketers or any product end user; and which has an annual throughput of not more than 22,710 cubic meters (6,000,000 gallons). After December 1, 1994, the annual throughput shall include organic liquids of at least 25.8 mmHg (0.5 psia) true vapor pressure. (Amended July 2, 1980; February 2, 1994)

8-6-202 Deleted February 2, 1994

8-6-203 Submerged Fill Pipes: Any discharge pipe, lance, or nozzle which meets either of the following conditions:

203.1 Where the vessel is filled from the top, the end of the discharge pipe or nozzle must be submerged when the liquid level is 15 centimeters (6 inches) from the bottom of the vessel. When the vessel is filled from the top with a retractable lance, the lance shall remain below the liquid surface during the transfer operation.

203.2 Where the vessel is filled from the side, the discharge pipe or nozzle must be totally submerged when the liquid level is 46 centimeters (18 inches) from the bottom of the vessel.

(Renumbered March 17, 1982; Amended February 2, 1994)

8-6-204 Bulk Terminal: Until December 1, 1994, any storage and distribution facility that receives organic liquid; stores it in stationary tanks; and/or mixes it in blending tanks; and/or loads it into delivery vehicles and transportable containers, for delivery to distributors, marketers or any product end user; and which has an annual throughput of more than 22,710 cubic meters (6,000,000 gallons). After December 1, 1994, the annual throughput shall include organic liquids of at least 25.8 mmHg (0.5 psia) true vapor pressure.

(Renumbered March 17, 1982; Amended February 2, 1994)

8-6-205 True Vapor Pressure: The pressure exerted when an organic liquid is in equilibrium with its own vapor at 25°C (77°F). For liquid mixtures, true vapor pressure is the sum of the equilibrium partial pressures exerted by all organic compounds in the liquid and can be estimated using Raoult's Law as follows:

$$P^* = \sum_{i=1}^{n} \frac{(W_i)(VP_i)/MW_i}{\dfrac{W_w}{MW_w} + \sum_{i=1}^{n} \dfrac{W_i}{MW_i}}$$

Where:

W_i = Weight of the "i"th organic compound, in grams
W_w = Weight of water, in grams
MW_i = Molecular weight of the "i"th organic compound, in grams/gram-mole
MW_w = Molecular weight of water, in grams/gram-mole
P^* = True vapor pressure of liquid mixture at 25°C, in mmHg
VP_i = Vapor pressure of the "i"th organic compound at 25°C, in mmHg

For organic liquids and organic liquid mixtures to which heat is applied, the true vapor pressure shall be determined at 25°C (77°F) or the actual loading temperature, whichever is higher.

(Renumbered March 17, 1982; Amended February 2, 1994)

8-6-206 Vapor Tight: A leak less than 100 percent of the Lower Explosive Limit on a portable hydrocarbon detector measured at a distance of 1 centimeter from the source. (Renumbered March 17, 1982; Amended February 2, 1994)

8-6-207 Organic Compound: Any compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides of carbonates, and ammonium carbonate. (Adopted February 2, 1994)

8-6-208 Loading Equipment: Any combination of loading arms, pumps, flexible hosing, dispensing nozzles, meters, and other piping and valves necessary to fill delivery vehicles or transportable containers with organic liquids.

(Adopted February 2, 1994)

8-6-209 Organic Liquid: Any organic compound or mixture of organic compounds that exists in the liquid phase at actual loading conditions. For the purposes of this Rule, organic liquids shall not include coatings, adhesives and sealants.

(Adopted February 2, 1994)

8-6-210 Transportable Containers: Any portable enclosed vessel such as a tote tank or cylindrical drum, which contains 550 gallons or less and is used to transport and distribute organic liquids. (Adopted February 2, 1994)

8-6-211 Leak Free: An organic liquid leak not exceeding three drops per minute, excluding losses, which occurs upon disconnecting transfer fittings. Such disconnect losses shall not exceed 10 milliliters (ml) during a bottom-loading operation or no more than two milliliters (ml) during a top-loading operation, averaged over three disconnects. (Adopted February 2, 1994)

8-6-212 Delivery Vehicle: Any motor truck or truck trailer equipped with a stationary cargo tank having a capacity more than 550 gallons and designed and built for the transportation of organic liquids. (Adopted February 2, 1994)

8-6-213 Switch Loading: For the purpose of this Rule, switch loading refers to the transfer of organic liquids into a delivery vehicle cargo tank, which results in displacement of organic vapors remaining from a previous load. (Adopted February 2, 1994)

8-6-214 Vapor Loss Control System: A system for reducing emissions to the atmosphere, consisting of an abatement device and a collection system, which achieves the abatement efficiency or emission limit specified in the applicable standard(s) during the transfer operation and meets the requirements of Regulation 2, Rule 1. (Adopted February 2, 1994)

8-6-215 Liquefied Petroleum Gas: A compressed gas composed of one or more of the following flammable hydrocarbons (propane, n-butane, isobutane, propylene, and butylenes), which is used especially as a fuel or as raw material for chemical synthesis. (Adopted February 2, 1994)

8-6-216 Vapor Balance System: A piping system that is designed to collect organic vapors displaced from organic liquid transfer operations and to route the collected vapors to the vessel from which the liquid being loaded originated. (Adopted February 2, 1994)

8-6-217 Throughput: The total volume of organic liquid transferred into delivery vehicles and transportable containers. The volume of water in an organic liquid/water mixture shall not be considered part of the facility throughput. (Adopted February 2, 1994)

8-6-300 STANDARDS

8-6-301 Bulk Terminal Limitations: A person shall not transfer or allow the transfer of organic liquids from bulk terminal loading equipment unless a vapor loss control system is properly connected and used. Such transfer operations shall not emit into the atmosphere more than 21 grams of organic compounds per cubic meter (0.17 pounds per 1,000 gallons) of organic liquid loaded. Switch loading shall be subject to this standard. (Amended March 17, 1982; February 2, 1994)

8-6-302 Bulk Plant Limitations: A person shall not load or allow the loading of any organic liquid from bulk plant loading equipment unless the following requirements are satisfied:

302.1 Vapor Recovery Requirement: Any emissions displaced while transferring an organic liquid with a true vapor pressure of at least 77.5 mmHg (1.5 psia) into a delivery vehicle shall be controlled by a vapor balance system or a vapor loss control system which is properly connected and used during loading. Emissions to atmosphere shall not exceed 44 grams of organic compounds per cubic meter (0.35 pounds per 1,000 gallons) of organic liquid loaded.

302.2 Submerged Fill Requirement: Except as provided in Section 8-6-116, either a submerged fill pipe, bottom filling, or a vapor loss control system shall be used when transferring an organic liquid into a delivery vehicle or transportable container. When a vapor loss control system is used,

emissions to atmosphere shall not exceed 44 grams of organic compound per cubic meter (0.35 pounds per 1000 gallons) of organic compound loaded. (Amended July 2, 1980; February 2, 1994)

8-6-303 Deleted February 2, 1994

8-6-304 Deliveries to Storage Tanks: A person shall not transfer or allow the transfer of any organic liquid with a true vapor pressure of at least 77.5 mmHg (1.5 psia) into any bulk terminal or bulk plant storage tank having a capacity between 7.6 and 150 cubic meters (2,008 and 39,630 gallons), inclusive, unless a vapor balance system or a vapor loss control system has been properly installed on the storage tank and is properly connected during delivery. Emissions to atmosphere shall not exceed 21 grams of organic compounds per cubic meter (0.17 pounds per 1,000 gallons) of organic compound loaded.

(Amended February 2, 1994)

8-6-305 Delivery Vehicle Requirements: Any delivery vehicle loaded at a terminal or bulk plant which is subject to the requirements of Section 8-6-301 or 302.1 shall be equipped to allow proper connection to the vapor balance system or vapor loss control system required by the section and shall be maintained to be vapor tight, leak free, and in good working order. (Amended February 2, 1994)

8-6-306 Equipment Maintenance: All equipment associated with organic liquid delivery and loading operations shall be maintained to be vapor tight, leak free and in good working order. (Amended February 2, 1994)

8-6-307 Operating Practices: Any organic liquid subject to this Rule shall not be spilled, discarded in sewers, stored in open containers, or handled in any other manner that would result in evaporation to the atmosphere. (Amended February 2, 1994)

8-6-400 ADMINISTRATIVE REQUIREMENTS

8-6-401 Deleted February 2, 1994

8-6-402 Deleted February 2, 1994

8-6-403 Compliance Schedule: Any person who must install or modify equipment to comply with the requirements of Section 301, 302 or 304 shall comply with the following increments of progress: -

403.1 By June 1, 1994, submit a completed application to the APCO for an Authority to Construct.

403.2 After December 1, 1994, be in final compliance.

(Adopted February 2, 1994)

8-6-500 MONITORING AND RECORDS

8-6-501 Records: After December 1, 1994, a person whose loading equipment is subject to this Rule shall comply with the following requirements:

501.1 A person shall maintain a current record of the true vapor pressure of each organic liquid and organic liquid mixture.

501.2 A person shall maintain monthly records that provide the throughput (gallons) of each organic liquid and organic liquid mixture transferred into delivery vehicles and transportable containers with at least 25.8 mmHg (0.5 psia) true vapor pressure.

501.3 Such records shall be retained for the previous 24-month period and be available to the APCO upon request. (Adopted February 2, 1994)

8-6-502 Portable Hydrocarbon Detector: Any instrument used for the measurement of organic compounds shall meet the specifications and performance criteria of, and shall be calibrated in accordance with, EPA Reference Method 21 (40CFR60, Appendix A). (Adopted February 2, 1994)

8-6-503 **Burden of Proof:** The burden of proof of eligibility for exemption from the requirements of this Rule is on the applicant. Persons seeking such an exemption shall maintain adequate records and furnish them to the APCO upon request. (Adopted February 2, 1994)

8-6-600 **MANUAL OF PROCEDURES**

8-6-601 **Efficiency and Rate Determination:** The means for determining compliance with Sections 8-6-301, 302, and 304 are set forth in the Manual of Procedures, Volume IV, ST-3 or ST-34. (Amended March 17, 1982; February 2, 1994)

8-6-602 Deleted February 2, 1994

8-6-603 **Analysis of Samples, True Vapor Pressure:** Samples of organic compounds as specified in Section 8-6-110 shall be analyzed for true vapor pressure at 25°C (77°F), as prescribed in the Manual of Procedures, Volume III, Method 28. For organic liquids and organic liquid mixtures to which heat is applied, the true vapor pressure shall be determined at 25°C (77°F) or the actual loading temperature, whichever is higher.

(Adopted March 17, 1982; Amended February 2, 1994)

8-6-604 **Determination of Applicability:** Any of the following methods may be used to determine if an organic liquid is subject to the requirements of this Rule based on its true vapor pressure:

604.1 EPA-450/3-87-026 (Exhibit A-2 in Appendix A or Appendix D), or

604.2 Standard reference texts, or

604.3 For liquid mixtures, use Raoult's Law of Partial Pressures as defined in Section 8-6-205 or ASTM Method D 2879-83.

(Adopted February 2, 1994)

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REGULATION 8
ORGANIC COMPOUNDS
RULE 7
GASOLINE DISPENSING FACILITIES

8-7-100 GENERAL

8-7-101 Description: The purpose of this Rule is to limit emissions of organic compounds from gasoline dispensing facilities.

(Amended 3/17/82; 11/30/83; 10/17/90)

8-7-110 Exemptions

8-7-111 Phase I Exemptions: The following are exempt from Section 8-7-301:

111.1 Storage tanks with an actual capacity of less than 0.95 cubic meters (250 gallons).

111.2 Deleted November 6, 2002

111.3 Storage tanks with a capacity of less than 2.2 cubic meters (550 gallons), used primarily for the fueling of implements of husbandry as defined in Division 16, Chapter 1, of the California Vehicle Code, provided such tanks are equipped with a submerged fill pipe.

111.4 Storage tanks installed before January 1, 1999 where the APCO determines in writing that Phase I vapor recovery is not feasible.

(Amended and Renumbered 11/30/83; 3/4/87; Amended 10/17/90; 6/1/94; 11/17/99; 11/6/02)

8-7-112 Phase II Exemptions: The following are exempt from Sections 8-7-302 and 313. These exemptions shall not apply to tanks equipped with Phase II vapor recovery equipment unless the Phase II equipment has been removed or otherwise decomissioned to the APCO's satisfaction.

112.1 Facilities which are exempt from Phase I.

112.2 Delivery of fuel to a fuel tank of a vehicle belonging to a class of vehicles for which the APCO has determined in writing that fill-neck configuration or location or some other design feature of the class makes application of the requirements of this rule infeasible. This subsection 8-7-112.2 shall not exempt any gasoline dispensing facility from installing and using such vapor recovery systems as required by this Rule.

112.3 Dispensing of gasoline at facilities where the APCO determines in writing that Phase II vapor recovery is not feasible.

112.4 Mobile refueling and any other vehicle to vehicle refueling.

112.5 Tanks installed prior to March 4, 1987 at facilities which exclusively refuel motor vehicle tanks with a capacity of 0.019 cubic meters (5 gallons) or less.

112.6 Facilities which exclusively refuel aircraft or marine vessels.

112.7 Tanks installed prior to March 4, 1987 at facilities with an annual throughput of less than 227 cubic meters (60,000 gallons) where Phase II vapor recovery equipment was not installed prior to July 1, 1983. Should throughput exceed 227 cubic meters (60,000 gallons) in any consecutive 12-month period, this exemption shall no longer apply.

112.8 Deleted March 4, 1987

112.9 Facilities which can demonstrate to the APCO that at least 90% of the vehicles refueled at the facility in any (time period) are owned by a common operator and equipped with onboard refueling vapor recovery (ORVR). This exemption shall not apply to facilities required to have Phase II vapor recovery under state law.

(Amended and Renumbered 11/30/83; 3/4/87; Amended 10/17/90; 6/1/94; 11/17/99; 11/6/02)

8-7-113 Tank Gauging and Inspection Exemption: Any tank may be opened for gauging or inspection when loading operations are not in progress provided that such tank is not pressurized.

(Adopted November 30, 1983)

8-7-114 Stationary Tank Testing Exemption: The requirements of 8-7-301 do not apply to deliveries made to completely fill stationary tanks for the purpose of tank integrity

leak testing, provided that such deliveries do not exceed 3.8 cubic meters (1000 gallons) at each facility.

(Adopted 11/30/83; Amended 11/17/99)

8-7-115 **Exemption, Hold Open Latch**: The requirements of Section 8-7-314 shall not apply to nozzles which primarily refuel marine vessels or aircraft, or in areas where prohibited by the local fire marshal.

(Adopted November 17, 1999)

8-7-116 **Exemption, Periodic Testing Requirements**: The Periodic Testing Requirements of subsections 8-7-301.13, 302.14, and 302.15 shall not apply to new or modified equipment subject to start-up test requirements of Section 8-7-406. This exemption applies only to specific tests required to be performed under Section 8-7-406. The equipment remains subject to all other periodic tests required by Sections 8-7-301 and 302. This exemption does not apply to any start-up or periodic testing required otherwise by this regulation, District Permit conditions, applicable CARB Executive Orders, or state law.

(Adopted November 6, 2002)

8-7-117 **Limited Testing Frequency Exemption, ISD-Equipped Tanks**: Tanks equipped with an in-station diagnostics (ISD) system shall be required to conduct and pass any tests required by subsections 8-7-301.13, 302.14, and 302.15 at least once in the preceding 24-month period rather than at least once in the preceding 12-month period as set forth in those subsections. This limited exemption does not apply to any start-up or periodic testing otherwise required by this regulation, District Permit conditions, applicable CARB Executive Orders, or state law.

(Adopted November 6, 2002)

8-7-200 **DEFINITIONS**

8-7-201 **CARB Certified Vapor Recovery System:** A vapor recovery system which has been certified by the California Air Resources Board (CARB) pursuant to Section 41954 of the California Health and Safety Code.

(Adopted 11/30/83; Amended 10/17/90; 11/17/99)

8-7-202 **Gasoline:** Motor fuel containing any petroleum distillate where the Reid vapor pressure of the fuel is greater than 4.0 pounds.

(Adopted 11/30/83; Amended 10/17/90)

8-7-203 **Leak Free:** A liquid leak of no greater than three drops per minute.

(Adopted 11/30/83; Amended 10/17/90)

8-7-204 **Phase I:** Gasoline vapor recovery during transfer of gasoline between any gasoline cargo tank and any stationary tanks at dispensing facilities.

(Adopted 11/30/83; Amended 10/17/90; 11/17/99)

8-7-205 **Phase II:** Gasoline vapor recovery during motor vehicle refueling operations from stationary tanks at gasoline dispensing facilities.

(Adopted 11/30/83; Amended 11/17/99)

8-7-206 **Vapor Tight:** one of the following applicable criteria:

206.1 A leak of less than 100 percent of the lower explosive limit on a combustible gas detector measured at a distance of 2.5 cm (1 inch) from the source; or

206.2 No visible evidence of air entrainment in the sight glasses of liquid delivery hoses or bubbling of applied soap solution; or

206.3 Absence of a leak as determined by the Manual of Procedures, Volume IV, ST-30, ST-38 or CARB Method TP-201.3.

(Adopted 11/30/83; Amended 3/4/87; 10/17/90; 6/1/94; 11/17/99; 11/6/02)

8-7-207 **Submerged Fill Pipe:** Any discharge pipe or nozzle which meets either of the following conditions:

207.1 Where the tank is filled from the top, the end of the discharge pipe or nozzle must be totally submerged when the liquid level is 15 cm (6 inches) from the bottom of the tank.

207.2 Where the tank is filled from the side, the discharge pipe or nozzle must be totally submerged when the liquid level is 46 centimeters (18 inches) from the bottom of the tank.

(Adopted November 30, 1983)

8-7-208 **Top Off:** Any attempt to dispense gasoline to a fuel tank after the dispensing nozzle's primary shutoff mechanism has engaged. The filling of a class of vehicle tanks which, because of the configuration of the fill pipe, cause premature activation of the primary shutoff, shall not be considered topping off.

(Renumbered 11/30/83; Amended 11/17/99; 11/6/02)

8-7-209 **Gasoline Dispensing Facility (GDF):** Any stationary operation which dispenses gasoline directly into the fuel tanks of motor vehicles. This facility shall be treated as a single source which includes all necessary equipment for the exclusive use of the facility, such as nozzles, dispensers, pumps, vapor return lines, plumbing and storage tanks.

(Adopted 3/4/87; Amended 11/17/99)

8-7-210 **Fuel Tank:** Any container from which gasoline is directly removed for the operation of an engine.

(Adopted November 17, 1999)

8-7-211 **Gasoline Cargo Tank:** Any mobile container, including associated pipes and fittings, that is used for the transportation of gasoline and would be required to be certified in accordance with Section 41962 of the California Health and Safety Code if used to transport gasoline on a highway.

(Adopted November 17, 1999)

8-7-212 **Liquid Retain:** Liquid gasoline remaining in or accumulating in the nozzle/hose assembly on the atmospheric side of the vapor check valve after a refueling event.

(Adopted November 17, 1999)

8-7-213 **Spitting:** Liquid gasoline dispensed from the nozzle spout when the trigger is depressed without the dispenser being activated.

(Adopted 11/17/99; Amended 11/6/02)

8-7-214 **Hold Open Latch:** A certified device which is an integral part of the nozzle and is manufactured specifically for the purpose of dispensing gasoline without requiring the consumer's continued physical contact with the nozzle during a refueling event.

(Adopted November 17, 1999)

8-7-215 **Stationary Tank:** Any non-mobile container used for the storage or distribution of gasoline.

(Adopted November 17, 1999)

8-7-216 **Motor Vehicle:** For the purposes of this rule, all vehicles defined as motor vehicles in Section 415 of the California Motor Vehicle Code plus self propelled mobile equipment, marine vessels, and aircraft.

(Adopted November 17, 1999)

8-7-217 **Balance System:** A Phase II vapor recovery system operating on the principle of vapor displacement.

(Adopted November 17, 1999)

8-7-218 **Vacuum-Assist System:** A Phase II vapor recovery system utilizing a vacuum producing device such as, but not limited to, a compressor or turbine to create a vacuum during gasoline dispensing to capture or assist in the capture of gasoline vapors.

(Adopted11/17/99; Amended 11/6/02)

8-7-219 **Retail Gasoline Dispensing Facility:** Any gasoline dispensing facility subject to the payment of California sales tax for the sale of gasoline to the public. All other GDFs shall be considered non-retail.

(Adopted November 17, 1999)

8-7-220 **Mobile Refueler:** A tank truck or trailer transporting gasoline in an onboard storage tank and dispensing it directly into any motor vehicle fuel tank.

(Adopted November 17, 1999)

8-7-221 **On-Board Refueling Vapor Recovery (ORVR):** A vehicle-based vapor recovery system required by California Code of Regulations, title 13, section 1978, or 40 Code of Federal Regulations Part 86.

(Adopted 11/17/99; Amended 11/6/02)

8-7-222 **Insertion Interlock:** A CARB-certified mechanism that is an integral part of a bellows-equipped dispensing nozzle that prohibits the dispensing of fuel unless the bellows is compressed.

(Adopted November 17, 1999)

8-7-223 **In-Station Diagnostic (ISD) System:** Equipment certified by CARB pursuant to Certification Procedure CP-201 to monitor performance of a vapor recovery system at a gasoline dispensing facility.

(Adopted November 6, 2002)

8-7-300 STANDARDS

8-7-301 **Phase I Requirements:** A person subject to this section shall comply with all of the following requirements:

301.1 A person shall not transfer or allow the transfer of gasoline into stationary tanks at a gasoline dispensing facility unless a CARB certified Phase I vapor recovery system is used. Effective June 1, 2000, a person shall not transfer or allow the transfer of gasoline between a cargo tank or a mobile refueler and a stationary tank unless a CARB certified Phase I vapor recovery system is used during each gasoline transfer.

301.2 All Phase I vapor recovery systems at gasoline dispensing facilities shall be installed as per the most recent CARB certifications and shall meet the emission limitations of the applicable CARB certification. This standard shall apply to each stationary tank during each bulk gasoline delivery.

301.3 All Phase I vapor recovery systems shall be equipped with a submerged fill pipe.

301.4 Deleted November 17, 1999

301.5 All Phase I vapor recovery equipment shall be maintained to be properly operating as specified by the manufacturer and/or the applicable CARB Executive Order.

301.6 All Phase I vapor recovery equipment, except for components with an allowable leak rate, shall be maintained to be leak-free and vapor tight. Components with allowable leak rates, including pressure vacuum relief valves, shall operate within the applicable leakage rate.

301.7 All Phase I vapor recovery systems shall have a CARB certified poppetted drybreak or other CARB-certified poppeted fitting on the vapor riser.

301.8 Effective June 1, 2000 no coaxial Phase I systems certified by CARB prior to January 1, 1994 may be installed on new or modified tanks.

301.9 Effective June 1, 2000, all new Phase I systems must be equipped with a CARB-certified anti-rotational coupler or swivel adapter.

301.10 Effective six months after CARB-certification, no person shall install or modify a Phase I vapor recovery system unless the system vapor recovery rate is 98% or the highest vapor recovery rate specified by CARB if the highest rate is less than 98%.

301.11 No person shall operate a Phase I system on an underground tank unless the system is equipped with a CARB-certified spill box.

301.12 Effective June 1, 2000, or effective as prescribed by California Code of Regulations, title 17, section 94011, whichever is later, no person shall install or operate a spill-box equipped with a drain valve on the vapor pipe of a two-point Phase I system unless the drain valve has been permanently plugged.

301.13 Effective June 1, 2003, no person shall operate a gasoline storage tank equipped with a Phase I vapor recovery system without demonstrating compliance with the vapor tightness standards of subsections 8-7-301.6 and 302.5 by conducting and passing a test pursuant to Section 8-7-602 on the tank and any vapor recovery equipment connected to the tank at least once in the preceding 12 month period.

(Adopted 11/30/83; Amended 10/17/90; 11/17/99; 11/6/02)

8-7-302 **Phase II Requirements:** A person subject to this section shall comply with all of the following requirements:

302.1 A person shall not transfer or allow the transfer of gasoline from stationary tanks into motor vehicle fuel tanks at a gasoline dispensing facility unless a CARB certified Phase II vapor recovery system is used during each transfer.

302.2 All Phase II vapor recovery systems shall be maintained as per the most recent CARB certifications and the manufacturer's specifications.

302.3 All Phase II vapor recovery equipment shall be maintained to be properly operating as specified by the manufacturer and the applicable CARB Executive Order and free of defects as defined in Section 41960.2(c) of the California Health and Safety Code and California Code of Regulations, title 17, section 94006.

302.4 Any component identified as defective but that does not substantially impair the effectiveness of the Phase II vapor recovery system pursuant to Section 41960.2 (e) of the California Health and Safety Code and California Code of Regulations, title 17, section 94006 shall be repaired or replaced within seven days.

302.5 All Phase II vapor recovery equipment shall be maintained to be both leak-free and vapor tight. This requirement shall not apply to components with an allowable leak rate or at the nozzle/fill-pipe interface.

302.6 All bellows-equipped vapor recovery nozzles shall be equipped with an insertion interlock.

302.7 Effective June 1, 2000, or effective as prescribed by California Code of Regulations, title 17, section 94011, whichever is later, no person shall install or operate a vapor recovery nozzle on a balance system unless the nozzle is equipped with a built-in vapor check valve. Remote vapor check valves may not be used in conjunction with nozzles with built-in vapor check valves.

302.8 All liquid removal devices required by CARB Executive Order shall achieve a minimum liquid removal rate of at least 5 milliliters per gallon dispensed. This standard shall apply at dispensing rates exceeding 5 gallons per minute, or as otherwise specified in the applicable Executive Order.

302.9 No person shall install or operate a vapor recovery nozzle unless it is equipped with a coaxial hose.

302.10 No person shall install or operate a gasoline dispenser at a gasoline dispensing facility unless the connection between the riser and the dispenser cabinet is constructed from either galvanized piping or flexible tubing that is listed for use with gasoline. The nominal diameter of this connector shall not be less than 1 inch unless otherwise specified by the applicable CARB Executive Order.

302.11 No person shall operate a vacuum assist Phase II vapor recovery system installed after June 1, 2000 unless it has been certified by CARB to be compatible with ORVR.

302.12 Effective June 1, 2000, liquid retain from any nozzle shall not exceed 100 ml per 1,000 gallons dispensed or the quantity specified in CARB Certification Procedure CP-201, whichever is less. The quantity of liquid retain shall be determined using CARB Test Procedure TP-201.2E or a test procedure that has been determined by CARB to be equivalent to TP-201.2E.

302.13 Effective June 1, 2000, spitting from any nozzle shall not exceed 1.0 ml per nozzle per test or the quantity specified in CARB Certification Procedure CP-201, whichever is less. The quantity of spitting shall be determined using CARB Test Procedure TP-201.2D or a test procedure that has been determined by CARB to be equivalent to TP-201.2D.

302.14 Effective June 1, 2003, no person shall operate a Balance Phase II vapor recovery system equipped with vapor return piping unless a Backpressure test in accordance with Section 8-7-601 has been conducted and passed in the preceding 12 month period. The vapor return piping shall meet the following standards:

14.1 The dynamic back pressure standard specified in the applicable CARB Executive Order.

14.2 Dynamic back pressures less than or equal to 0.15, 0.45, and 0.95 inches of water when measured at nitrogen flow rates of 20, 60, and 100 CFH respectively for systems subject to a CARB Executive Order that does not specify a backpressure standard.

302.15 Effective June 1, 2003, no person shall operate a Vacuum Assist Phase II vapor recovery system unless the following tests have been conducted and passed in the preceding 12 month period:

15.1 An Air-to-Liquid Volume Ratio (A/L) test conducted in accordance with Section 8-7-604 on all nozzles on a Phase II system for which the applicable CARB Executive Order specifies an A/L standard. The A/L for each nozzle shall be within the range specified in the applicable Executive Order.

15.2 Any other test(s) required to be re-performed on a periodic basis by the CARB Executive Order applicable to the Phase II system. Test results shall be within the limits established in the applicable CARB Executive Order.

(Adopted 11/30/83; Amended 10/17/90; 11/17/99; 11/6/02)

8-7-303 **Topping Off:** A person shall not top off fuel tanks or other vessels.

(Renumbered 11/30/83; Amended 11/17/99)

8-7-304 **Certification Requirements:** A person shall not offer for sale, sell or install within the District, any Phase I or Phase II vapor recovery equipment unless such equipment is CARB certified, meets the performance specifications required by the CARB certification procedures and this rule, and is installed in accordance with the most recent applicable CARB Executive Order.

(Amended and Renumbered 11/30/83; Amended 10/17/90; 11/17/99)

8-7-305 **Deleted October 17, 1990**

8-7-306 **Prohibition of Use:** Whenever the APCO determines that a Phase II vapor recovery system, or any component thereof, contains a defect specified by CARB pursuant to Section 41960.2(c) of the Health and Safety Code or California Code of Regulations, title 17, section 94006, the APCO shall mark such system or component "Out of Order." No person shall use or permit the use of such marked component or system until it has been repaired, replaced, or adjusted, as necessary, and the APCO has reinspected it or has authorized its use pending reinspection.

(Amended Novermber 6, 2002)

8-7-307 **Posting of Operating Instructions:** Each gasoline dispensing facility utilizing a Phase II system shall conspicuously post operating instructions specific to the system in use in the gasoline dispensing area. The instructions shall clearly describe how to fuel vehicles correctly with the vapor recovery nozzles utilized at the station. The instructions shall also include a warning that topping off is prohibited, and may result in spillage or recirculation of gasoline. Additionally, the instructions shall include a prominent display of the District's or the CARB's toll free telephone number for complaints.

(Amended 11/30/83; 11/17/99)

8-7-308 **Operating Practices:** Gasoline shall not be spilled, discarded in sewers, stored in open containers, or handled in any other manner that would result in evaporation to the atmosphere.

(Adopted November 30, 1983)

8-7-309 **Contingent Vapor Recovery Requirement:** Facilities which are equipped with Phase II vapor recovery must also be equipped with Phase I vapor recovery.

(Adopted 3/4/87; Amended 10/17/90)

8-7-310 **Deleted November 17, 1999**

8-7-311 **Exempt Tank Requirements:** Any tank with a capacity greater than 0.95 cubic meter (250 gallons) where Phase I vapor recovery equipment is not required must be equipped with a submerged fill pipe.

(Adopted 10/17/90; Amended 11/17/99)

8-7-312 **Deleted November 17, 1999**

8-7-313 **Requirements for New or Modified Phase II Installations:** Effective June 1, 2000 or effective as prescribed by California Code of Regulations, title 17, section 94011, whichever is later, no person shall install or modify a Phase II vapor recovery system unless all new equipment is CARB-certified to meet the following emission limitations without any maintenance being performed on that equipment for 90 days prior to the certification test:

313.1 The total emissions of organic compounds from the nozzle/fill pipe interface, storage tank vent pipes, and pressure-related fugitives shall not exceed 0.42 pounds per 1000 gallons gasoline dispensed.

313.2 The emissions of organic compounds from spillage shall not exceed 0.42 pounds per 1000 gallons gasoline dispensed.

313.3 The emissions of organic compounds from liquid retain and spitting shall not exceed 0.42 pounds per 1000 gallons gasoline dispensed.

(Adopted 11/17/99; Amended 11/6/02)

8-7-314 **Hold Open Latch Requirements:** A person shall not operate a nozzle that dispenses gasoline at a retail gasoline dispensing facility or a gasoline dispensing facility operated by the state or any county, city and county, or city unless the nozzle is equipped with an operating hold open latch. Any hold open latch determined to be inoperative may be repaired or replaced by the owner or operator within 48 hours of notification by the APCO or fire marshal without any fines or penalty action.

(Adopted November 17, 1999)

8-7-315 **Pressure Vacuum Valve Requirements, Underground Storage Tanks:** No person shall operate an underground tank dispensing gasoline unless it is equipped with a CARB certified pressure vacuum (P/V) valve on the vent pipe(s). The valve settings shall be three inches of water column plus or minus one-half inch on the pressure side and eight inches of water column plus or minus two inches on the vacuum side or as otherwise specified in the applicable CARB vapor recovery certification.

(Adopted 11/17/99; Amended 11/6/02)

8-7-316 **Pressure Vacuum Valve Requirements, Aboveground Storage Tanks and Vaulted Below-Grade Storage Tanks:** No person shall operate a stationary aboveground storage tank or vaulted below-grade storage tank dispensing gasoline unless it is equipped with a pressure vacuum (P/V) valve on the vent pipe(s). The valve settings shall be either as specified in the applicable CARB Executive Order or, for uncertified tanks, at least 90% of the tank's maximum allowable working pressure or 25.8 mm Hg (.5 psig).

(Adopted11/17/99; Amended 11/6/02)

8-7-400 **ADMINISTRATIVE REQUIREMENTS**

8-7-401 **Equipment Installation and Modification:** A person shall not install or modify Phase I or Phase II gasoline vapor recovery equipment unless an Authority to Construct has been obtained pursuant to Section 301 of Regulation 2, Rule 1. An Authority to Construct shall not be required for the replacement of existing hoses and/or nozzles, or for other repairs or replacements of like parts, unless the APCO determines that testing is necessary to verify proper installation of the vapor recovery system.

(Adopted 11/30/83; Amended 11/17/99)

8-7-402 **Deleted October 17, 1990**

8-7-403 **Deleted March 4, 1987**

8-7-404 **Deleted November 17, 1999**

8-7-405 **Deleted November 17, 1999**

8-7-406 **Testing Requirements, New and Modified Installations:** No person shall operate new or modified gasoline dispensing equipment without complying with the testing and notification requirements of an Authority to Construct. Installations performed without obtaining an Authority to Construct remain subject to performance testing and prompt submission of applicable data. This requirement may be waived in whole or part for equipment installed at sites for the purposes of performance testing by the District or CARB to establish a new or modified executive order.

(Adopted November 17, 1999)

8-7-407 **Periodic Testing Requirements:** No person shall operate gasoline dispensing equipment equipped with Phase I or Phase II vapor recovery equipment without complying with the applicable periodic testing requirements of Sections 8-7-301 and 302.

(Adopted November 6, 2002)

8-7-408 **Periodic Testing Notification and Submission Requirements:** District Source Test staff shall be notified by phone, FAX, or email at least 48 hours prior to testing. Test results shall be submitted to the District Source Test Manager no later than 30 days after the test date and include all necessary data and equipment specifications to determine compliance with the applicable standards.

(Adopted November 6, 2002)

8-7-500 MONITORING AND RECORDS

8-7-501 **Burden of Proof:** The burden of proof of eligibility for exemption from any section of this rule is on the applicant. Persons seeking such an exemption shall maintain adequate records and furnish them to the APCO upon request.

(Adopted 11/30/83; Amended 11/17/99)

8-7-502 **Right of Access:** Any facility subject to this rule shall maintain on site the means to provide access to any and all components as necessary to determine compliance with the provisions of this rule. Access shall be furnished to the APCO upon request.

(Adopted October 17, 1990)

8-7-503 **Record Keeping Requirements:**

503.1 All gasoline dispensing facilities shall maintain records of the quantity of gasoline dispensed from the storage tanks during the last 12 month period.

503.2 All gasoline dispensing facilities shall maintain maintenance records detailing the nature and the date of all maintenance activities, including results of all required testing, during the last 12 month period.

503.3 All records required pursuant to subsections 8-7-503.1 and 503.2 shall be retained for 24 months and made available at the gasoline dispensing facility for inspection by the APCO.

(Adopted 11/17/99; Amended 11/6/02)

8-7-600 MANUAL OF PROCEDURES

8-7-601 **Determination of Equipment In Compliance with Dynamic Backpressure Requirements:** Compliance with the dynamic back pressure standard shall be determined as prescribed in the Manual of Procedures, under the pertinent sections of Volume IV, ST-27 or as prescribed by CARB Test Procedure TP-201.4.

(Amended 11/30/83; 10/17/90; 11/17/99; 11/6/02)

8-7-602 **Determination of Equipment in Compliance with Vapor Tightness Requirements:** Compliance with the vapor tightness standards shall be determined as prescribed in the Manual of Procedures, Volume IV, ST-30 (underground storage tanks) or ST-38 (vaulted storage tanks) or as prescribed by CARB Test Procedure TP-201.3 (underground tanks) or CARB Test Procedure TP-201.3B (vaulted storage tanks).

(Adopted 11/17/99; Amended 11/6/02)

8-7-603 **Determination of Equipment in Compliance with Phase I Vapor Recovery Efficiency:** Compliance with subsection 8-7-301.2 shall be determined as prescribed in the Manual of Procedures, Volume IV, ST-36 or as prescribed by CARB Test Procedure TP-201.1.

(Adopted 10/17/90; Renumbered, Amended 11/17/99; Amended 11/6/02)

8-7-604 **Determination of Equipment in Compliance with Liquid Removal Requirements:** Compliance with subsection 8-7-302.8 shall be determined as prescribed in the Manual of Procedures, Volume IV, ST-37.

(Adopted November 17, 1999)

8-7-605 **Determination of Equipment in Compliance with Air to Liquid Volume Ratio (A/L) Requirements:** Compliance with the air to liquid volume ratio requirements shall be determined as prescribed in the Manual of Procedures, Volume IV, ST-39 or CARB Test Procedure TP-201.5.

(Adopted11/17/99; Amended 11/6/02)

8-7-606 **Determination of Applicability**: To determine the applicability of this Rule, samples of gasoline shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 13.

(Adopted 10/17/90; Renumbered, Amended 11/17/99)

REGULATION 8
ORGANIC COMPOUNDS
RULE 8
WASTEWATER (OIL-WATER) SEPARATORS

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REGULATION 8
ORGANIC COMPOUNDS
RULE 8
WASTEWATER (OIL-WATER) SEPARATORS
(Adopted January 17, 1979)

8-8-100 GENERAL

8-8-101 **Description:** The purpose of this Rule is to limit the emissions of precursor organic compounds from wastewater (oil-water) separators, forebays, and air flotation units which remove floating oil, floating emulsified oil, or other liquid precursor organic compounds. (Amended November 1, 1989)

8-8-110 **Exemption, Less Than 760 Liters:** The requirements of Section 8-8-301 shall not apply to any wastewater separator which processes less than 760 liters (200 gals.) per day of wastewater containing organic liquids. This exemption shall not apply to wastewater separators at petroleum refinery complexes after March 1, 1980.

8-8-111 **Deleted November 1, 1989**

8-8-112 **Exemption, Wastewater Critical OC Concentration And/Or Temperature:** The requirements of Sections 8-8-301, 302, 306, 307, and 308 shall not apply to any wastewater separator that processes influent wastewater less than 20 degrees C (68 ^{o}F) and/or wastewater comprised of less than 1.0 ppm (volume) critical organic compounds, as defined in Section 8-8-210, dissolved in the water samples, provided that the requirements of Section 8-8-502 are met.

(Adopted November 1, 1989)

8-8-113 **Exemption, Secondary Wastewater Treatment Processes And Stormwater Sewer Systems:** The requirements of Sections 8-8-301, 302, 306, and 308 shall not apply to any secondary wastewater treatment processes or stormwater sewer systems, as defined in Sections 8-8-208 and 216, which are used as a wastewater polishing step or collection of stormwater which is segregated from the process wastewater collection system. (Adopted November 1, 1989)

8-8-114 **Exemption, Bypassed Oil-Water Separator or Air Flotation Influent:** The requirements of Sections 8-8-301, 302, and 307 shall not apply for wastewater which bypasses either the oil-water separator or air flotation unit provided that: (1) the requirements of Section 8-8-501 are met; and (2) on that day the District did not predict an excess of the Federal Ambient Air Quality Standard for ozone.

(Adopted November 1, 1989)

8-8-115 **Exemption, Municipal Wastewater Treatment Facilities:** The requirements of Sections 8-8-301, 302, 303, 304, 305, 306, 307, and 308 shall not apply to any publicly owned municipal wastewater treatment facility.

(Adopted November 1, 1989)

8-8-200 DEFINITIONS

8-8-201 **Organic Compounds:** For the purposes of this Rule, any organic compound as defined in Section 8-8-210. (Amended November 1, 1989)

8-8-202 **Wastewater (Oil-Water) Separator:** Any device used to separate liquid organic compounds from oil-water waste streams (excluding Wastewater Separator Forebay, Air Flotation (AF) units, Sludge-dewatering Units, Oil-Water Separator and /or AF Unit Slop Oil Vessels, and Junction Boxes). (Amended November 1, 1989)

8-8-203 **Wastewater Separator Forebay:** That section of a gravity-type separator which (a) receives the untreated, contaminated wastewater from the preseparator flume, and (b) acts as a header which distributes the influent to the separator channels.

(Amended November 1, 1989)

8-8-204 **Vapor-tight:** The concentration of precursor organic compounds, measured one centimeter from the source, shall not exceed 500 ppm (expressed as methane) above background. (Adopted November 1, 1989)

8-8-205 **Oil-Water Separator Slop Oil:** Floating oil, flocculant sludge, and solids which accumulate in an oil-water separator or air flotation unit.

(Adopted November 1, 1989)

8-8-206 **Oil-Water Separator Effluent Channel/Pond:** An open channel, trench, pond, or basin which handles wastewater downstream of an oil-water separator that has not been treated by an air flotation unit (usually located between the separator and the air flotation unit). (Adopted November 1, 1989)

8-8-207 **Full Contact Fixed Cover:** A stationary separator cover which is always in full contact with the liquid surface of the oil-water separator.

(Adopted November 1, 1989)

8-8-208 **Secondary Treatment Processes:** Any wastewater treatment process which is downstream of the air flotation unit, any other biological treatment process at a refinery, or any treatment process which is regulated by the EPA National Categorical Pretreatment Standards. These treatment processes are considered to be wastewater polishing steps and include: activated sludge tanks/basins, trickling or sand filters, aerated lagoons, oxidation ponds, rotating biological contactors, and other biological wastewater treatment processes. (Adopted November 1, 1989)

8-8-209 **Air Flotation Unit:** Any device, equipment, or apparatus in which wastewater is saturated with air or gas under pressure and removes floating oil, floating emulsified oil, or other floating liquid precursor organic compounds by skimming. Also included in this definition are: induced air flotation units and pre-air flotation unit flocculant sumps, tanks, or basins. (Adopted November 1, 1989)

8-8-210 **Critical Organic Compound (OC):** Any compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, carbonates and ammonium carbonate, or non-precursor organic compounds (Methylene chloride, 1,1,1 trichloroethane, 1,1,2 trichlorotrifluoroethane (CFC-113), trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), dichlorotetrafluoroethane (CFC-114), and chloropentafluoroethane (CFC-115), emitted during separation, processing, or storage of wastewater, and having a carbon number of C-14 or less (excluding phenolic compounds).

(Adopted November 1, 1989)

8-8-211 **Wastewater:** Any process water which contains oil, emulsified oil, or other organic compounds which is not recycled or otherwise used within a facility.

(Adopted November 1, 1989)

8-8-212 **Pre-Air Flotation Unit Flocculation Sump, Basin, Chamber, or Tank:** Any facility which pretreats the air flotation unit's influent with chemical coagulants, and/or adjusts the influent's pH. (Adopted November 1, 1989)

8-8-213 **Oil-Water Separator Slop Oil Vessel:** Any vessel which, as its sole function, treats or dewaters oil-water separator slop oil. (Adopted November 1, 1989)

8-8-214 **Oil-Water Separator Effluent:** Any process wastewater downstream of the oil-water separator that has not been treated by an air flotation unit.

(Adopted November 1, 1989)

8-8-215 **Sludge-dewatering Unit:** Any device which, as its sole function, is used to dewater oil-water separator and air flotation slop oil/sludge. (Adopted November 1, 1989)

8-8-216 **Stormwater Sewer System:** A drain and collection system designed and operated for the sole purpose of collecting stormwater and which is segregated from the wastewater collection system. (Adopted November 1, 1989)

8-8-217 **Junction Box:** A manhole or access point to a wastewater sewer system line. (Adopted November 1, 1989)

8-8-218 **Sewer Line:** A lateral, trunk line, branch line, ditch, channel, or other conduit used to convey wastewater to downstream oil-water separators. (Adopted November 1, 1989)

8-8-300 **STANDARDS**

8-8-301 **Wastewater Separators Greater than 760 Liters per Day and Smaller than 18.9 Liters per Second:** A person shall not operate any wastewater separator and/or forebay with a design rated or maximum allowable capacity greater than 760 liters per day and smaller than 18.9 liters per second (oil-water separators and/or forebays between 200 gals per day to 300 gals per min.) unless such wastewater separator and/or forebay is operated within its design rated or maximum allowable capacity and is equipped with one of the following:

301.1 A solid, gasketed, fixed cover totally enclosing the separator tank, chamber, or basin (compartment) liquid contents, with all cover openings closed, except when the opening is being used for inspection, maintenance, or wastewater sampling. Roof seals, access doors, and other openings shall be checked by visual inspection initially and semiannually thereafter to ensure that no cracks or gaps greater than 0.32 cm (0.125 inch) occur in the roof or between the roof and wall; and that the access doors and other openings are closed and gasketed properly; or

301.2 A floating pontoon or double-deck vapor-tight type cover. All floating roofs must rest entirely on the liquid surface. The floating roof shall consist of two seals, one above the other, the one below shall be referred to as the primary seal, while the other seal shall be referred to as the secondary seal.

2.1 Oil-Water Separator Liquid-Mounted Primary Seal Gap Criteria: No gap between the separator wall and the liquid-mounted primary seal shall exceed 3.8 cm (1.5 inch). No continuous gap greater than 0.32 cm (0.125 inch) shall exceed 10 percent of the perimeter of the separator. The cumulative length of all primary seal gaps exceeding 1.3 cm (0.5 inch) shall be not more than 10 percent of the perimeter and the cumulative length of all primary seal gaps exceeding 0.32 cm (0.125 inch) shall be not more than 40 percent of the perimeter.

2.2 Oil-Water Separator Secondary And Wiper Seals Gap Criteria: No gap between the separator wall and the secondary and wiper seals shall exceed 1.5 mm (0.06 inch). The cumulative length of all secondary and wiper seals gaps exceeding 0.5 mm (0.02 inch) shall be not more than 5 percent of the perimeter of the separator. The secondary and wiper seals must exert a positive pressure against the separator such that the seal surface in contact with the separator wall does not pull away from the separator wall more than the gaps allowed.

2.3 Primary And Secondary Seal Gap Inspection: The primary seal shall be inspected within 60 calendar days after initial installation of the floating roof and once every 5 years thereafter in accordance with the requirements of Subsection 8-8-301.2.2.1. The secondary seal shall be inspected within 60 calendar days after initial installation of the floating roof and once every year thereafter in accordance with the requirements of Subsection 8-8-301.2.2.2. The owner or operator shall make necessary repairs within 30 calendar days of identification of seals not

meeting the requirements listed in Subsections 8-8-301.2.1 and 301.2.2.2.; or

301.3 An OC vapor recovery system with a combined collection and destruction efficiency of at least 95 percent, by weight.

301.4 **Deleted October 6, 1993**

(Amended November 1, 1989; October 6, 1993)

8-8-302 **Wastewater Separators Larger than or Equal to 18.9 Liters per Second:** A person shall not operate any wastewater separator and/or forebay with a rated or maximum allowable capacity larger than or equal to 18.9 liters per second (300 gals per min.) unless such wastewater separator and/or forebay is operated within its design rated or maximum allowable capacity and is equipped with one of the following:

302.1 A solid, vapor-tight, full contact fixed cover which totally encloses the separator tank, chamber, or basin (compartment) liquid contents, with all cover openings closed and sealed, except when the opening is being used for inspection, maintenance, or wastewater sampling; or

302.2 A floating pontoon or double-deck vapor-tight type cover. All floating roofs must rest on the liquid surface. The floating roof shall consist of two seals, one above the other, the one below shall be referred to as the primary seal, while the other seal shall be referred to as the secondary seal.

2.1 Oil-Water Separator Liquid-Mounted Primary Seal Gap Criteria: No gap between the separator wall and the liquid-mounted primary seal shall exceed 3.8 cm (1.5 inch). No continuous gap greater than 0.32 cm (0.125 inch) shall exceed 10 percent of the perimeter of the separator. The cumulative length of all primary seal gaps exceeding 1.3 cm (0.5 inch) shall be not more than 10 percent of the perimeter and the cumulative length of all primary seal gaps exceeding 0.32 cm (0.125 inch) shall be not more than 40 percent of the perimeter.

2.2 Oil-Water Separator Secondary And Wiper Seals Gap Criteria: No gap between the separator wall and the secondary and wiper seals shall exceed 1.5 mm (0.06 inch). The cumulative length of all secondary and wiper seals gaps exceeding 0.5 mm (0.02 inch) shall be not more than 5 percent of the perimeter of the separator. The secondary and wiper seals must exert a positive pressure against the separator such that the seal surface in contact with the separator wall does not pull away from the separator wall more than the gaps allowed; or

2.3 Primary And Secondary Seal Gap Inspection: The primary seal shall be inspected within 60 calendar days after initial installation of the floating roof and once every 5 years thereafter in accordance with the requirements of Subsection 8-8-302.2.2.1. The secondary seal shall be inspected within 60 calendar days after initial installation of the floating roof and once every year thereafter in accordance with the requirements of Subsection 8-8-302.2.2.2. The owner or operator shall make necessary repairs within 30 calendar days of identification of seals not meeting the requirements listed in Subsections 8-8-302.2.2.1 and 302.2.2.2.; or

302.3 A vapor-tight fixed cover with an OC vapor recovery system which has a combined collection and destruction efficiency of at least 95 percent, by weight, inspection and access hatches shall be closed except when the opening is being used for inspection, maintenance, or wastewater sampling, or

302.4 A solid, sealed, gasketed, fixed cover which totally encloses the separator tank, chamber, or basin (compartment) liquid contents, with all cover openings closed and sealed, except when the opening is being used for

inspection, maintenance, or wastewater sampling. The cover may include a pressure/vacuum valve. The concentration of precursor organic compounds, measured one centimeter from the roof seals, fixed cover, access doors, pressure/vacuum valve, and other openings shall not exceed 1,000 ppm (expressed as methane) above background. Roof seals, fixed cover, access doors, and other openings shall be inspected initially and semiannually thereafter to ensure that there are no emission leaks greater than 1,000 ppm. Any emission leak greater than 1,000 ppm must be reported to the APCO and repaired within 15 days.

302.5 Deleted October 6, 1993

(Adopted November 1, 1989; Amended October 6, 1993)

8-8-303 **Gauging and Sampling Devices:** Any compartment or access hatch shall have a vapor tight cover. Any gauging and sampling device in the compartment cover shall be equipped with a vapor tight cover, seal, or lid. The compartment cover and gauging or sampling device cover shall at all times be in a closed position, except when the device is in use for inspection, maintenance, or wastewater sampling.

(Amended, Renumbered November 1, 1989)

8-8-304 **Sludge-dewatering Unit:** Any sludge-dewatering unit, equipment, machinery, apparatus, or device shall be totally enclosed and vented to a control device which has a minimum combined collection and destruction efficiency of 95 percent by weight; or shall have vapor-tight covers on the unit, conveyer belts, and storage bins or tanks except during inspection, maintenance or when the solids storage bin is in use. (Adopted November 1, 1989; Amended October 6, 1993)

8-8-305 **Oil-Water Separator And/Or Air Flotation Unit Slop Oil Vessels:** A person shall not store any oil-water separator and/or air flotation unit sludges in an oil-water separator slop oil vessel unless such oil-water separator slop oil vessel is equipped with one of the following:

305.1 A solid, gasketed, fixed cover totally enclosing the vessel liquid contents, with all cover openings closed, except when the opening is being used for inspection, maintenance, or wastewater sampling. The cover may include an atmospheric vent or a pressure/vacuum valve. Roof seals, access doors, and other openings shall be checked by visual inspection initially and semiannually thereafter to ensure that no cracks or gaps greater than 0.32 cm (0.125 inch) occur in the roof or between the roof and wall; and that the access doors and other openings are closed and gasketed properly; or

305.2 An OC vapor recovery system with a combined collection and destruction efficiency of at least 70 percent, by weight.

305.3 Deleted October 6, 1993

(Adopted November 1, 1989; Amended October 6, 1993)

8-8-306 **Oil-Water Separator Effluent Channel, Pond, Trench, or Basin:** A person shall not operate any oil-water separator effluent channel, pond, trench, or basin a design rated or maximum allowable capacity greater than 25.2 liters per second (any oil-water separator effluent channel, pond, trench, or basin greater than 400 gals per min) unless such oil-water separator effluent channel, pond, trench, or basin is operated within its design rated or maximum allowable capacity and is equipped with one of the following:

306.1 A solid, gasketed, fixed cover totally enclosing the oil-water separator effluent channel, pond, trench, or basin (compartment) liquid contents, with all cover openings closed, except when the opening is being used for inspection, maintenance, or wastewater sampling. Roof seals, access doors, and other openings shall be checked by visual inspection initially and semiannually thereafter to ensure that no cracks or gaps greater than 0.32 cm (0.125 inch) occur in the roof or between the roof and wall; and that the access doors and other openings are closed and gasketed properly; or

306.2 An OC vapor recovery system with a combined collection and destruction efficiency of at least 70 percent, by weight.

306.3 Deleted October 6, 1993

(Adopted November 1, 1989; Amended October 6, 1993)

8-8-307 **Air Flotation Unit:** A person shall not operate any air flotation unit and/or pre-air flotation unit flocculation sump, basin, chamber, or tank with a design rated or maximum allowable capacity greater than 25.2 liters per second (air flotation units and/or pre-air flotation unit flocculation sump, basin, chamber, or tank greater than 400 gals per min.) unless such air flotation unit and/or pre-air flotation unit flocculation sump, basin, chamber, or tank is operated within its design rated or maximum allowable capacity and is equipped with one of the following:

307.1 A solid, gasketed, fixed cover totally enclosing the air flotation and pre-air-flotation-unit flocculation tank, chamber, or basin (compartment) liquid contents, with all cover openings closed, except when the opening is being used for inspection, maintenance, or wastewater sampling. The cover may include an atmospheric vent or pressure/vacuum valve. Roof seals, access doors, and other openings shall be checked by visual inspection initially and semiannually thereafter to ensure that no cracks or gaps greater than 0.32 cm (0.125 inch) occur in the roof or between the roof and wall; and that the access doors and other openings are closed and gasketed properly; or

307.2 An OC vapor recovery system with a combined collection and destruction efficiency of at least 70 percent, by weight.

307.3 Deleted October 6, 1993

(Adopted November 1, 1989; Amended October 6, 1993)

8-8-308 **Junction Box:** Any junction box shall be equipped with either a solid, gasketed, fixed cover totally enclosing the junction box or a solid manhole cover. Junction boxes may include openings in the covers and vent pipes if the total open area of the junction box does not exceed 81.3 cm^2 (12.6 in^2) and all vent pipes are at least 3 feet in length. (Adopted November 1, 1989; Amended October 6, 1993)

8-8-309 **Deleted October 6, 1993**

8-8-310 **Deleted October 6, 1993**

8-8-311 **Deleted October 6, 1993**

8-8-400 **ADMINISTRATIVE REQUIREMENTS**

8-8-401 **Deleted October 6, 1993**

8-8-500 **MONITORING AND RECORDS**

8-8-501 **API Separator or Air Flotation Bypassed Wastewater Records:** Any person who bypasses wastewater past their API Separator or Air Flotation unit shall maintain records on the amount of bypassed wastewater, duration, date, causes for bypasses, and dissolved critical OC concentration (volume). These records shall be retained and available for inspection by the APCO for at least 24 months.

(Adopted November 1, 1989)

8-8-502 **Wastewater Critical OC Concentration And/Or Temperature Records:** Any person who exempts their wastewater separator because of either wastewater critical OC concentration or temperature shall sample and test the wastewater initially and semiannually thereafter and maintain records on the date, time of test, location, and wastewater temperature and/or critical OC concentration (volume). These records shall be retained and available for inspection by the APCO for at least 24 months.

(Adopted November 1, 1989)

8-8-503 **Inspection and Repair Records:** Records of inspections and repairs as required by Sections 8-8-301, 302, 305, 306 or 307 shall be retained and made available for inspection by the APCO for at least 24 months. (Adopted October 6, 1993)

8-8-504 **Portable Hydrocarbon Detector:** Any instrument used for the measurement of organic compounds shall be a gas detector that meets the specifications and performance criteria of and has been calibrated in accordance with EPA Reference Method 21 (40 CFR 60, Appendix A). Adopted June 15, 1994)

8-8-600 **MANUAL OF PROCEDURES**

8-8-601 **Wastewater Analysis for Critical OCs:** Samples of wastewater as specified in this rule shall be taken at the influent stream for each unit and analyzed for the concentration of dissolved critical organic compounds as prescribed in the Manual of Procedures, Volume III, Lab Method 33.

(Amended November 1, 1989; October 6, 1993)

8-8-602 **Determination of Emissions:** Emissions of precursor organic compounds as specified in Sections 8-8-301.3, 8-8-302.3, 8-8-304, 8-8-305.2, 8-8-306.2, and 8-8-307.2 shall be measured as prescribed by any of the following methods: 1) BAAMQD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25, or 25A). A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule.

(Amended November 1, 1989; October 6, 1993, June15, 1994)

8-8-603 **Inspection Procedures:** For the purposes of Sections 8-8-301, 302, 303 and 304, leaks shall be measured using a portable gas detector as prescribed in EPA Reference Method 21 (40 CFR 60, Appendix A). (Adopted June 15, 1994)

REGUALTION 8

ORGANIC COMPOUNDS

RULE 9

VACUUM PRODUCING SYSTEMS

REGULATION 8

ORGANIC COMPOUNDS

RULE 9

VACUUM PRODUCING SYSTEMS

8-9-100 GENERAL

8-9-101 **Description:** The purpose of this Rule is to limit emission of precursor organic compounds from vacuum producing systems. (Amended 3/17/82, 7/20/83)

8-9-110 **Exemption, Vacuum Tank Trucks:** The requirements of Section 8-9-301 shall not apply to vacuum tank trucks which are governed by the requirements of Rule 2 - Miscellaneous, of this Regulation 8.

8-9-111 **Exemption, Chemical Plants:** The provisions of Section 8-9-301 shall not apply to chemical plants until January 1, 1985. (Adopted 7/20/83)

8-9-200 DEFINITIONS

8-9-201 **Chemical Plants:** Any facility engaged in producing organic or inorganic chemicals and/or manufacturing products by chemical processes. Any facility or operation that has 28 as the first two digits in their Standard Industrial Classification Code as determined from the Standard Industrial Classification manual published in 1972 by the Executive Office of the President, Office of Management and Budget. Chemical plants may include, but are not limited to the manufacture of: industrial inorganic and organic chemicals; plastic and synthetic resins, synthetic rubber, synthetic and other man made fibers; drugs, soap, detergents and cleaning preparations, perfumes, cosmetics and other toilet preparations; paints, varnishes, lacquers, enamels and allied products; agricultural chemicals; safflower and sunflower oil extracts; re-refining. (Adopted 7/20/83)

8-9-202 **Petroleum Refinery:** Any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants or other products through distillation of petroleum or through redistillation, cracking, rearrangement or reforming of unfinished petroleum derivatives. (Adopted 7/20/83)

8-9-203 **Vacuum Producing Systems:** Vacuum producing systems include, but are not limited to, steam ejectors with contact (barometric) condensers, steam ejectors with surface condensers, and mechanical vacuum pumps.

8-9-300 STANDARDS

8-9-301 **Vacuum Producing Systems:** The control of precursor organic compound emissions from vacuum producing systems at petroleum refineries and chemical plants shall be accomplished by employing the following equipment and/or strategies:

301.1 Non-Condensable precursor organic emissions from vacuum producing systems must either be controlled and piped to an appropriate firebox or incinerator for combustion, or be collected, compressed, and added to the fuel gas system, or be contained and treated so as to prevent their emission into the atmosphere.

301.2 Hot wells and/or accumulators associated with vacuum system condensers must be covered and the precursor organic vapors must either be incinerated or contained and treated so as to prevent their emission into the atmosphere.
(Amended 7/20/83)

8-9-400 ADMINISTRATIVE REQUIREMENTS

8-9-401 Increments of Progress: A person at a chemical plant who must modify existing sources or install new control equipment to comply with the requirements of this Rule shall comply with the following compliance schedule:

401.1 January 1, 1984: Submit to the APCO a final control plan which describes, as a minimum, the steps, including a construction schedule, that will be taken to achieve compliance with such requirements.

401.2 July 1, 1984: Submit a completed application for any Authority to Construct necessary to achieve compliance with such requirements.

401.3 January 1, 1985: Be in compliance with all the requirements of this Rule.
(Amended 7/20/83)

8-9-600 MANUAL OF PROCEDURES

8-9-601 Determination of Emissions: Emissions of organic compounds as specified in Section 8-9-301 shall be measure as prescribed in the Manual of Procedures, Volume IV, ST-7. (Adopted 3/17/83)

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REGULATION 8
ORGANIC COMPOUND
RULE 10
PROCESS VESSEL DEPRESSURIZATION

8-10-100 GENERAL

8-10-101 Description: The purpose of this Rule is to limit emissions of precusor organic compounds from process vessel depressurization at petroleum refineries and chemical plants. (Amended 3/17/82, 7/20/83)

8-10-110 Exemption, Storage Vessels: The requirements of Section 8-10-301 shall not apply to stationary containers used solely for the storage of an organic liquid

8-10-111 Exemption, Chemical Plants: The provisions of Section 8-10-301 shall not apply to chemical plants until January 1, 1985. (Adopted 7/20/83)

8-10-200 DEFINITIONS

8-10-201 Chemical Plant: Any facility engaged in producing organic or inorganic chemicals and/or manufacturing products by chemical processes. Any facility or operation that has 28 as the first two digits in their Standard Industrial Classification Code as determined from the Standard Industrial Classification Manual published in 1972 by the Executive Office of the President, Office of Management and Budget. Chemical plants may include, but are not limited to the manufacture of: industrial inorganic and organic chemicals; plastic and synthetic resins, synthetic rubber, synthetic and other man made fibers; drugs; soap, detergents and cleaning preparations, perfumes, cosmetics and other toilet preparations; paints, varnishes, lacquers, enamels and allied products; agricultural chemicals; safflower and sunflower oil extracts; re-refining. (Adopted 7/20/83)

8-10-202 Petroleum Refinery: Any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants or other products through distillation of petroleum or through redistillation, cracking, rearrangement or reforming of unfinished petroleum derivatives. (Adopted 7/20/83)

8-10-203 Process Unit: A manufacturing process which is independent of other processes and is continuous when supplied with a constant feed of raw materials and sufficient storage facilities for the final product. (Adopted 7/20/83)

8-10-204 Process Vessel: Any vessel in which organic compounds are fractionated on more than one tray or on packing, or chemically reacted, or washed or purified. (Renumbered 7/20/83)

8-10-300 STANDARDS

8-10-301 Process Vessel Depressurizing: The control of precursor organic compound emissions from depressurizing any process vessel at a petroleum refinery or a chemical plant during a process unit turnaround shall be accomplished so that the organic compounds, after passing through a knockout pot to remove the condensable fraction, must either be:

301.1 Recovered (add to the fuel gas system) and combusted,

301.2 Controlled and piped to an appropriate firebox or incinerator for combustion,

301.3 Flared,

301.4 Contained and treated so as to prevent their emissions to the atmosphere. Such procedures shall continue until the pressure within the process vessel is as close to atmospheric pressure as practicably possible, in no case shall a process vessel be vented to the atmosphere until the partial pressure of organic compounds in that vessel is less than 1000 mm Hg (4.6 psig).

(Amended 3/17/83, 3/20/83)

8-10-400 ADMINISTRATIVE REQUIREMENTS

8-10-401 Turnaround Records: Refinery personnel shall keep records of each process unit turnaround, listing as a minimum:

401.1 The date of unit shutdown and/or depressurizing,

401.2 The approximate process vessel hydrocarbon concentration when the organic emissions were first discharged into the atmosphere, and

401.3 The approximate quantity of total precursor organic compounds emitted into the atmosphere. These records shall be kept for at least two (2) years and be made available to the APCO during any compliance inspection.

(Amended 3/17/82, 7/10/83)

8-10-402 Increments of Progress: A person who must modify existing sources or install new control equipment at chemical plants to comply with the requirements of this Rule shall comply with the following compliance schedule:

402.1 January 1, 1984: Submit to the APCO final control plan which describes, as a minimum, the steps, including a construction schedule, that will be taken to achieve compliance with such requirements.

402.2 July 1, 1984: Submit a completed application for any Authority to Construct necessary to achieve compliance with such requirements.

402.3 January 1, 1985: Be in compliance with all the requirements of this Rule.

(Amended July 20, 1983)

REGULATION 8
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8-11-600 MANUAL OF PROCEDURES

REGULATION 8
ORGANIC COMPOUNDS
RULE 11
METAL CONTAINER, CLOSURE AND COIL COATING

(Adopted January 24, 1979)

8-11-100 GENERAL

8-11-101 **Description:** The purpose of this Rule is to reduce emissions of volatile organic compounds (VOC) from the coating of metal coils, cans, drums, pails, lids and crowns.

8-11-110 **Deleted September 20, 1989**

8-11-200 DEFINITIONS

8-11-201 **Coating Line:** An operation or process for applying, drying, baking and/or curing surface coatings, together with associated equipment including a coating applicator, flashoff area and oven.

8-11-202 **Coil Coating:** Any coating applied to metal sheets or strips which are then rolled into coils for further industrial or commercial use.

8-11-203 **Daily Weighted Average:** The amount of volatile organic compounds emitted on a given day, considering actual production, VOC content of coatings used, and the degree of control achieved by any abatement equipment on the coating line or lines included in the submitted plan.

8-11-204 **End Sealing Compound:** A compound which is coated onto can ends and which functions as a gasket when the end is assembled onto the can.

8-11-205 **Exterior Base Coating:** A coating applied to the exterior of a can body, end, or flat sheet to provide protection to the metal or to provide background for any lithographic or printing operation. (Amended December 19, 1984)

8-11-206 **Exterior Body Spray:** A coating sprayed on the exterior of the container body to provide a decorative or protective finish.

8-11-207 **Interior Base Coating:** A coating applied to the interior of a can body, end, or flat sheet to provide a protective lining between the product and the can. (Amended December 19, 1984)

8-11-208 **Interior Body Spray:** A coating sprayed on the interior of the can body to provide a protective film between the product and the can.

8-11-209 **Metal Container or Closure Coating:** Any coating applied to either the interior or exterior of formed metal cans, drums, pails, lids or crowns or flat metal sheets which are intended to be formed into cans, drums, pails, lids or crowns.

8-11-210 **Overvarnish:** A coating applied directly over a design coating to reduce the coefficient of friction, to provide gloss and to protect the finish against abrasion and corrosion.

8-11-211 **Three-piece Can Side-Seam Spray:** A coating sprayed on the exterior and/or interior of a welded, cemented or soldered seam to protect the exposed metal.

8-11-212 **Two-piece Can Exterior-End Coating:** A coating applied to the exterior bottom end of a can to reduce the coefficient of friction and to provide protection to the metal. (Amended November 19, 1997)

8-11-213 **Deleted September 20, 1989**

8-11-214 **Deleted September 20, 1989**

8-11-215 **Volatile Organic Compound:** Any organic compound (excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate) which would be emitted during use, application, curing or drying of a solvent or surface coating.

215.1 For purposes of calculating VOC content of a coating, any water or the following non-precursor organic compounds shall not be considered to be part of the coating:

methylene chloride
1,1,1 trichloroethane
triclorotrifluoroethane (CFC-113)
trichlorofluoromethane (CFC-11)
dichlorodifluoromethane (CFC-12)
dichlorotetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC-115)
acetone
parachlorobenzotrifluoride (PCBTF)
cyclic, branched or linear, completely methylated siloxanes (VMS)

(Adopted September 20, 1989; Amended December 20, 1995)

8-11-216 **Reconditioned Drums, Pails, or Lids:** Any metal container which is reused, recycled or remanufactured. (Adopted September 20, 1989)

8-11-217 **Ink:** Any coating used to impart graphical designs, letters, or numerals on the exterior surface of a metal container, closure, or coil.

(Adopted September 20, 1989, amended November 19, 1997)

8-11-218 **Food Cans:** Any metal container used for the storage of food products intended for human or animal consumption. (Adopted November 19, 1997)

8-11-300 **STANDARDS**

8-11-301 **Metal Container or Closure Coating Limitations:** Except as provided in Sections 8-11-302 and 305, a person shall not apply any metal container or closure coating with a VOC content in excess of the following limits, expressed as grams VOC per liter (pounds VOC per gallon) of coating, as-applied, excluding water:

	Coating Category		Effective July 1, 1998	Effective Jan 1, 2000	Effective Jan 1, 2002
	CANS				
301.1	Sheet basecoat (interior and exterior) and overvarnish	225 (1.9)			
301.2	Deleted September 20, 1989				
301.3	Two-piece can exterior basecoat, overvarnish, and end coating	250 (2.1)			
301.4	Interior body spray				
	4.1 Two-piece cans	510 (4.2)	420 (3.5)		
	4.2 Three-piece cans	510 (4.2)	360 (3.0)		
301.5	Three-piece can side seam spray	660 (5.5)			
301.6	End sealing compound				
	6.1 Food cans	440 (3.7)			20 (0.1)
	6.2 Non-Food cans	440 (3.7)	20 (0.1)		
	6.3 Beverage cans	440 (3.7)	20 (0.1)		
301.7	Exterior body spray	420 (3.5)			
	DRUMS, PAILS, AND LIDS				
301.8	Body Spray				
	8.1 Reconditioned Interior	510 (4.2)			
	8.2 Reconditioned Exterior	420 (3.5)			
	8.3 New Interior	510 (4.2)		420 (3.5)	
	8.4 New Exterior	420 (3.5)		340 (2.8)	
301.9	End Sealing Compound				
	9.1 Food Drums	440 (3.7)			60 (0.5)
	9.2 Non-Food Drums	440 (3.7)	60 (0.5)		
301.10	Inks, all applications	300 (2.5)			

(Amended 12/19/84; 9/20/89; 10/6/93; 11/19/97)

8-11-302 **Emission Control Device Limitation for Metal Container or Closure Coatings:** The use of coatings with VOC contents in excess of the limits specified in Section 8-11-301 shall be allowed, provided emissions of VOC to the atmosphere are controlled to an equivalent level by air pollution abatement equipment with an

abatement device efficiency of at least 90 percent that meets the requirements of Regulation 2, Rule 1. (Amended September 20, 1989; October 6, 1993)

8-11-303 **Coil Coating Limitation:** Except as provided in Sections 8-11-304, a person shall not apply any coil coating with a VOC content in excess of 200 grams per liter of coating applied (1.7 lb/gal), excluding water. (Amended December 19, 1984)

8-11-304 **Emission Control Device Limitation for Coil Coating:** The requirements of Section 8-11-303 shall not apply to a coil coating line from which emissions of VOC to the atmosphere are controlled to no more than 120 grams per liter of coating applied (1.0 lb/gal), excluding water, by air pollution abatement equipment with an abatement device efficiency of at least 90 percent that meets the requirements of Regulation 2, Rule 1.

(Amended December 19, 1984; September 20, 1989; October 6, 1993)

8-11-305 **Alternative Emission Control Plan:** The requirements of Sections 8-11-301 shall not apply to any coating line or coating lines which comply with an alternative emission control plan which satisfies all the following requirements:

305.1 Emissions of VOC, on a daily weighted average, shall be no greater than that amount which would result if the affected coating line or lines complied with all applicable requirements of Sections 8-11-301. Air pollution abatement devices used to control VOC emissions must achieve an abatement device efficiency of at least 90 percent and meet the requirements of Regulation 2, Rule 1.

305.2 The plan shall be submitted to the APCO for review and approval on an annual basis.

305.3 The plan shall include methods acceptable to the APCO for demonstrating compliance with the plan on a daily basis. Such demonstration shall include the following:

- 3.1 List of products which will be coated on each line
- 3.2 Type of coatings which will be applied on each product
- 3.3 Amount of those coatings which will be applied on each coating product
- 3.4 VOC content or equivalent emission level for each coating, per gallon or liter of solids for each coating
- 3.5 Detailed description of compensation reduction to be achieved for each non-complying product.

305.4 The information required in subsection 305.3 shall be available for inspection by the APCO on each production day and maintained for two years.

305.5 The plan shall contain credit only for reductions achieved on coating lines subject to this Rule and not for emission reductions required by other District rules or regulations.

305.6 Failure to comply with any provision of an approved plan shall constitute a violation of this Rule.

305.7 The person submitting the plans shall retain such records for two years and submit such information on coating usage, coating composition, laboratory analysis, source tests, or other information as required by the APCO to determine compliance with the plan.

305.8 If any District regulation is adopted or amended after approval of the plan, which requires emission reductions which are included in the plan, a new plan shall be submitted which does not include credit for those reductions.

(Amended December 19, 1984; September 20, 1989; October 6, 1993)

8-11-306 **Surface Preparation and Cleanup Solvent**: The requirements of this Section shall apply to any person using organic solvent for surface preparation or cleanup.

306.1 A person shall use closed containers for storage or disposal of cloth or paper used for solvent surface preparation and cleanup.

306.2 A person shall store fresh or spent solvent in closed containers.

306.3 A person shall not use organic compounds for the cleanup of spray equipment including paint lines unless equipment for collecting the cleaning compounds and minimizing their evaporation to the atmosphere is used.

8-11-400 ADMINISTRATIVE REQUIREMENTS

8-11-401 Deleted September 20, 1989

8-11-402 Operation and Maintenance Plan: Every twelve months, at least 60 days prior to permit renewal, any person subject to the provisions of Section 8-11-302, 304 or 305 where applicable shall submit to the APCO for approval an Operation and Maintenance (O/M) plan. Such plan will contain the following elements:

Afterburner Temperatures:
flame unit: minimum operating temperature
catalytic unit: minimum preheat temperature, temperature increase across catalyst bed
Burner maintenance schedule
Catalyst cleaning/recharging schedule, where applicable
Duct inspection schedule

(Adopted December 19, 1984; Amended September 20, 1989)

8-11-403 Compliance Schedule: Any person subject to the provisions of Section 8-11-504 shall comply with the following increment of progress:

403.1 By January 1, 1990, be in full compliance. (Adopted September 20, 1989)

8-11-500 MONITORING AND RECORDS

8-11-501 Coating Records: Any person subject to Section 8-11-301, 302, 303 or 304 shall comply with the following requirements.

501.1 A person shall maintain a current list of coatings in use which provides all of the coating data necessary to evaluate compliance.

501.2 A person shall maintain records on a daily basis showing the type and amount of each coating used.

501.3 A person shall maintain records on a monthly basis showing the types and amounts of solvent used for surface preparation and cleanup.

501.4 A person shall have available monthly records that provide information on a daily basis of the types of inks used. The amounts of ink used shall be maintained on a monthly basis.

501.5 Such records shall be retained and made available for inspection by the APCO for the previous 24-month period.

(Adopted December 19, 1984; Amended September 20, 1989)

8-11-502 Deleted September 20, 1989

8-11-503 Alternate Emission Control Plan Records: Any person subject to Section 8-11-305 shall comply with the provisions of Section 8-11-501, in addition to the elements already required in subsection 305.3.

503.1 Excess Reporting: Any record showing violation of subsection 305.1 shall be reported by sending a copy of such record to the Enforcement Division of the District within 96 hours following the occurrence. Such report will include an explanation of the cause of the violation and the corrective action taken.

(Adopted December 19, 1984; Amended September 20, 1989)

8-11-504 Afterburner Temperature, Monitoring: Any person incinerating gases, vapors or gas entrained effluent pursuant to the provisions of Sections 8-11-302, 8-11-304, and, where applicable, 8-11-305 shall install, calibrate and maintain in good working order a device which continuously records the operating temperature of the incineration unit. (Adopted September 20, 1989)

8-11-600 MANUAL OF PROCEDURES

8-11-601 Analysis of Samples: Samples of volatile organic compounds as specified in Sections 8-11-301 and 303 and subsection 8-11-305.7 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 21 or 22.

(Adopted March 17, 1982; Amended December 19, 1984)

8-11-602 **Determination of Emissions:** Emissions of volatile organic compounds as specified in Sections 8-11-302 and 304 and subsection 8-11-305.7 shall be measured as prescribed by any of the following methods 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. When either EPA Method 25 or 25A is used, control device equivalency shall be determined as prescribed in 55 FR 26865 (June 29, 1990). A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule.

(Adopted March 17, 1982; Amended December 19, 1984; June 15, 1994)

8-11-603 **Deleted October 6, 1993**

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REGULATION 8
ORGANIC COMPOUNDS
RULE 12
PAPER, FABRIC AND FILM COATING
(Adopted January 17, 1979)

8-12-100 GENERAL

8-12-101 Description: The purpose of this Rule is to limit emissions of volatile organic compounds (VOC) from the application of coatings and adhesives to paper, fabric or films. Any operation which is determined to be exempt from the provisions of this Rule shall be subject to the provisions of Rule 4, if not already subject to another rule of Regulation 8. (Amended June 18, 1986; June 21, 1989)

8-12-110 Exemptions: This Rule shall not apply to the following:

110.1 Any coating line which emits less than 6.5 kg (14.3 pounds) per day.

110.2 Deleted October 6, 1993

110.3 Operations manufacturing converted flexible packaging materials for packaging of food or health care products for human or animal consumption. Such line is subject to Rule 20 of this Regulation unless exempted by that rule.

110.4 Deleted June 21, 1989

110.5 Any coating line where printing or decorative design is applied on the same line. Such line is subject to Rule 20 of this Regulation unless exempted by that rule.

(Amended July 16,1980; June 18,1986; June 21, 1989; October 6, 1993)

8-12-200 DEFINITIONS

8-12-201 Approved Emission Control System: A system for reducing emissions of VOC to the atmosphere, consisting of a control device and a collection system, which meets the requirements of Regulation 2, Rule 1, and which satisfies the following conditions:

201.1 The control device shall operate at the efficiency required to meet the standards set forth in Section 301 at all times during normal operation of the equipment being controlled.

201.2 The collection system shall vent all drying oven exhaust to the control device.

201.3 The collection system shall have one or more inlets for collection of fugitive emissions.

201.4 The collection system shall be designed and operated in accordance with good engineering practice for maximum collection of fugitive emissions.

(Adopted June 18, 1986; Amended October 6, 1993)

8-12-202 Coating Line: All operations involved in the application, curing and/or drying of paper, fabric and film coatings or adhesives, which are applied uniformly across the substrate. (Renumbered June 18, 1986; Amended June 21, 1989)

8-12-203 Converted Flexible Packaging Materials: Any paper, plastic or foil substrate, or any combination of those materials, which is coated, waxed, laminated, printed or otherwise treated for fabrication into bags, pouches or other preformed flexible packages. (Renumbered June 18, 1986)

8-12-204 Fabric Coating: Any decorative or protective coating or reinforcing material applied on or impregnated into textile fabric or vinyl coated textile fabric or vinyl sheets.

(Renumbered June 18, 1986)

8-12-205 **Film Coating:** Any coating applied in a web coating process on any film substrate other than paper or fabric, including but not limited to typewriter ribbons, photographic film, magnetic tape and metal foil gift wrap.(Renumbered June 18, 1986)

8-12-206 **Paper Coating:** Any coating applied on or impregnated into paper, including but not limited to adhesive tapes and labels, book covers, post cards, office copier paper, drafting paper and pressure sensitive tape. (Renumbered June 18, 1986)

8-12-207 **Liquid Leak:** A leak of or greater than four drops per minute. (Adopted June 21, 1989)

8-12-208 **Volatile Organic Compounds:** Any organic compound (excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate) which would be emitted during use, application, curing or drying of a solvent or surface coating.

208.1 For purposes of calculating VOC content of a coating, any water or the following non-precursor organic compounds shall not be considered to be part of the coating:

methylene chloride
1,1,1 trichloroethane
1,1,2-trichlorotrifluoroethane (CFC-113)
trichlorofluoromethane (CFC-11)
dichlorodifluoromethane (CFC-12)
dichlorotetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC-115)
chlorodifluoromethane (HCFC-22)
trifluoromethane (HFC-23)
acetone
parachlorobenzotrifluoride (PCBTF)
cyclic, branched or linear, completely methylated siloxanes (VMS)

(Adopted June 21, 1989, Amended December 20, 1995)

8-12-209 **Adhesive:** Any substance applied for the primary purpose of bonding surfaces together. (Adopted June 21, 1989)

8-12-210 **Key System Operating Parameter:** An emission control system operating parameter, such as temperature, flow rate or pressure, that ensures operation of the abatement equipment within manufacturer specifications and compliance with the standards in Section 8-12-301.2. (Adopted June 15, 1994)

8-12-300 STANDARDS

8-12-301 **Limitations, Coating Lines:** A person subject to the requirements of this Rule shall satisfy one of the following conditions:

301.1 Low-Solvent Coating or Adhesive - A person using low-solvent coatings or adhesives to comply with this Rule shall use a coating or adhesive with a VOC content of less than 265 grams per liter of coating applied (2.2 pounds VOC per gallon), excluding water.

301.2 Approved Emission Control System - A person using an approved emission control system as defined in this Rule shall collect and reduce VOC emissions to less than 120 grams per liter of coating applied (1.0 pounds VOC per gallon), excluding water. (Amended June 18, 1986; June 21, 1989)

8-12-302 **Storage and Mixing Operations:** A person shall not allow any liquid leaks from containers storing organic solvents or from tanks for mixing coatings to be used on any paper, fabric or film coating line. All such containers and tanks shall be covered at all times except when material is being added or removed, when the tank or container is being cleaned, or when the container is empty.

8-12-303 **Deleted September 20, 1989**

8-12-304 **Compliance Statement Requirement:** The manufacturer of all coatings and adhesives which are sold for use in paper, fabric and film coating within the District shall include a designation of VOC (as defined in Section 8-12-209) expressed in grams per liter or pounds per gallon on data sheets. (Adopted June 21, 1989)

8-12-305 **Surface Preparation and Cleanup Solvent:** The requirements of this Section shall apply to any person using cleanup solvent:

305.1 A person shall not use open containers for the storage or disposal of cloth or paper impregnated with organic compounds that is used for surface preparation, cleanup or coating removal.

305.2 A person shall not store spent or fresh organic compounds to be used for surface preparation, cleanup or coating removal in open containers.

(Adopted June 21, 1989)

8-12-500 **MONITORING AND RECORDS**

8-12-501 **Coating Records:** Any person subject to Section 8-12-301:

501.1 Maintain a current list of coatings or adhesives in use which provides all of the data necessary to evaluate compliance.

501.2 Record on a daily basis the type and amount of each coating or adhesive used.

501.3 Record on a daily basis approved emission control key system operating parameters, as defined in Section 8-12-210, when air pollution abatement equipment is used to comply with the requirements of Section 301.2.

501.4 Records shall be retained and available for inspection by the APCO for the previous 24-month period.

(Adopted June 18, 1986; Amended June 21, 1989; June 15, 1994)

8-12-502 **Deleted September 20, 1989**

8-12-600 **MANUAL OF PROCEDURES**

8-12-601 **Analysis of Samples:** Samples of volatile organic compounds as specified in subsection 8-12-301.1 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Methods 21 or 22. (Adopted March 17, 1982, Amended June 18, 1986)

8-12-602 **Determination of Emissions:** Emissions of volatile organic compounds as specified in subsections 8-12-110.1, 301.2 or 303.7 shall be measured as prescribed any of the following methods: 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. When either EPA Method 25 or 25A is used, control device equivalency shall be determined as prescribed in 55 FR 26865 (June 29, 1990). A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule.

(Adopted March 17, 1982; Amended June 18, 1986; June 15, 1994)

REGULATION 8
ORGANIC COMPOUNDS
RULE 13
LIGHT AND MEDIUM DUTY MOTOR VEHICLE ASSEMBLY PLANTS

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REGULATION 8
ORGANIC COMPOUNDS
RULE 13
LIGHT AND MEDIUM DUTY MOTOR VEHICLE ASSEMBLY PLANTS
(Adopted January 24, 1979)

8-13-100 GENERAL

8-13-101 Description: The purpose of this Rule is to limit emissions of volatile organic compounds (VOC) from operations at light- and medium-duty motor vehicle assembly plants.

8-13-110 Deleted September 20, 1989

8-13-111 Deleted September 20, 1989

8-13-200 DEFINITIONS

8-13-201 Coating Line: That portion of a motor vehicle assembly plant where surface coatings are applied, dried and/or cured on such vehicles or vehicle components. (Amended September 20, 1989)

8-13-202 Electrophoretic Primer: Any primer applied by dipping the component in a coating bath with an electrical potential difference between the component and the bath.

8-13-203 Light- and Medium-Duty Motor Vehicles: All passenger cars, light-duty trucks and medium-duty vehicles as defined in Section 1900, Title 13, California Code of Regulations. (Amended September 20, 1989)

8-13-204 Primer: All coatings under the topcoat.

8-13-205 Primer Surfacer: Any primer coating applied over an electrophoretic primer for the primary purpose of establishing film build. (Amended September 20, 1989)

8-13-206 Spray Primer: Any primer, including sealers and adhesives, except primer surfacer. (Amended September 20, 1989)

8-13-207 Topcoat: The final coating or series of coatings applied for the purpose of establishing the final color and/or protective surface, including ground coat, basecoat/clearcoat systems and paint sealer materials. (Amended September 20, 1989)

8-13-208 Deleted September 20, 1989

8-13-209 Transfer Efficiency: The ratio of coating solids applied on the object being coated to the total volume of coating solids sprayed in the operation, expressed as a percentage as demonstrated pursuant to Section 8-13-603. (Adopted November 17, 1982; Amended September 20,1989)

8-13-210 Volatile Organic Compound: Any organic compound (excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate) which would be emitted during use, application, curing or drying of a solvent or surface coating.

210.1 For purposes of calculating VOC content of a coating, any water or any of the following non-precursor organic compounds shall not be considered to be part of the coating:

methylene chloride
1,1,1 trichloroethane
triclorotrifluoroethane (CFC-113)
trichlorofluoromethane (CFC-11)
dichlorodifluoromethane (CFC-12)
dichlorotetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC-115)
acetone

parachlorobenzotrifluoride (PCBTF)
cyclic, branched or linear, completely methylated siloxanes (VMS)
(Adopted September 20, 1989, Amended December 20, 1995)

8-13-211 **Final Repair Coat:** Any incidental coating applied to a fully assembled vehicle or vehicle part subsequent to the overall vehicle or vehicle part coating for the purpose of repairing minor imperfections or mechanical damage incurred prior to intended use. (Adopted September 20, 1989; Amended June 15, 1994)

8-13-212 **Flexible Parts Coatings:** Any coating intended for use on a part or product designed to withstand significant deformation without apparent damage, such as flexible automobile bumpers. (Adopted September 20, 1989)

8-13-213 **Flow Control Material:** Solvent added to the electophoretic primer coating tank for the purpose of stabilizing flow of the tank mixture. (Adopted September 20, 1989)

8-13-214 **Off-Line Automotive Coatings:** Incidental coating of automobile components which does not occur on the vehicle body coating line(s).
(Adopted September 20, 1989

8-13-215 **Key System Operating Parameter:** An air pollution abatement equipment operating parameter, such as temperature, flow rate or pressure, that ensures operation of the abatement equipment within manufacturer specifications and compliance with the standards in Sections 8-13-306, 307, and 308.
(Adopted June 15, 1994)

8-13-300 **STANDARDS**

8-13-301 **Deleted September 20, 1989**

8-13-302 **Final Limits, Topcoat, Spray Primer, Primer Surfacer:** For each operation as defined pursuant to Section 8-13-603, a person shall not discharge into the atmosphere VOC emissions in excess of:

302.1 1.80 kilograms of VOC per liter (15.0 lbs/gal) of applied coating solids from each spray primer operation.

302.2 1.80 kilograms of VOC per liter (15.0 lbs/gal) of applied coating solids from each primer surfacer operation.

302.3 1.80 kilograms of VOC per liter (15.0 lbs/gal) of applied coating solids from each topcoat operation. (Amended September 20, 1989)

8-13-303 **Final Repair Coat Limitation:** A person shall not apply on any light- or medium-duty vehicle coating line any final repair coat with a VOC content in excess of 580 grams per liter of coating applied, excluding water (4.8 lbs/gal), on a daily weighted average basis. (Amended September 20, 1989; October 6, 1993)

8-13-304 **Deleted September 20, 1989**

8-13-305 **Deleted September 20, 1989**

8-13-306 **Limits, Electrophoretic Primer:** A person shall not apply to any part or product subject to this Rule any electrophoretic primer which has a VOC content in excess of 145 grams per liter (1.2 lbs/gal) of coating applied, excluding water, unless emissions to the atmosphere are controlled to an equivalent level by use of an air pollution abatement device with an abatement device efficiency of at least 90% that meets the requirements of Regulation 2, Rule 1.
(Adopted September 20, 1989; Amended October 6, 1993)

8-13-307 **Limits, Flexible Parts Coatings:** A person shall not apply to any flexible part or product subject to this Rule any coating which has a VOC content in excess of the following limits expressed as grams of VOC per liter (lbs VOC per gal) of coating applied, excluding water, unless emissions to the atmosphere are controlled to an equivalent level by use of an air pollution abatement device with an abatement device efficiency of at least 90% that meets the requirements of Regulation 2, Rule 1:

307.1	flexible primer	490 grams/liter (4.1 lbs/gal)
307.2	color topcoat	450 grams/liter (3.8 lbs/gal)
307.3	basecoat/clearcoat (combined system)	540 grams/liter (4.5 lbs/gal)

(Adopted September 20, 1989; Amended October 6, 1993)

8-13-308 **Limits, Off-Line Coatings:** A person shall not apply to any part or product subject to this Rule any off-line coating which has a VOC content in excess of 340 grams per liter (2.8 lbs/gal) of coating applied, excluding water, unless emissions to the atmosphere are controlled to an equivalent level by use of an air pollution abatement device with an abatement device efficiency of at least 90% that meets the requirements of Regulation 2, Rule 1.

(Adopted September 20, 1989; Amended October 6, 1993)

8-13-309 **Surface Preparation and Cleanup Solvent:** The requirements of this Section shall apply to any person using solvent for surface preparation and cleanup.

309.1 A person shall use closed containers for the storage or disposal of cloth or paper used for solvent surface preparation and cleanup.

309.2 A person shall store fresh or spent solvent in closed containers.

309.3 A person shall not use organic compounds for the cleanup of spray equipment, including paint lines, unless equipment for collecting the organic compounds and minimizing their evaporation to the atmosphere is used.

(Adopted September 20, 1989)

8-13-400 **ADMINISTRATIVE REQUIREMENTS**

8-13-401 **Deleted November 17, 1982**

8-13-402 **Deleted September 20, 1989**

8-13-403 **Deleted September 20, 1989**

8-13-404 **Deleted September 20, 1989**

8-13-405 **Deleted September 20, 1989**

8-13-406 **Compliance Verification:** Any person subject to the provisions of Section 8-13-302 shall submit to the APCO for approval an initial Compliance Verification for topcoat applications on or before April 1, 1990, and a second Compliance Verification for all other coating applications on or before October 1, 1990. Subsequent Compliance Verifications shall be submitted to the APCO for approval on or before April 1 every year thereafter. A new Compliance Verification must be submitted within 180 days of a significant modification to coatings or application equipment. A Compliance Verification shall include the following elements:

406.1 Amount of each coating used.

406.2 VOC content of each coating used in grams per liter or pounds per gallon.

406.3 Percent solids by volume of each coating used.

406.4 Transfer efficiency for the application of each coating used.

406.5 Calculations based on the above elements which verify compliance with the applicable standard. (Adopted September 20, 1989)

8-13-500 MONITORING AND RECORDS

8-13-501 **Usage Records, Electrophoretic Primer:** Any person using electrophoretic primer shall maintain records of all materials added to primer coating tank, including amount added, VOC content of material added and date added. These records shall be available for inspection for a period of two years. VOC content of electrophoretic primer shall be calculated as a monthly average, based on all materials added and their respective VOC contents. Flow-control material added during downtime periods of seven or more consecutive days for purposes of stabilizing the tank mixture may be excluded from the VOC content calculation.

(Adopted November 17, 1982; Amended September 20, 1989)

8-13-502 **Deleted September 20, 1989**

8-13-503 **Usage Records, Coatings:** Any person subject to Sections 8-13-302, 8-13-303, 8-13-307, 8-13-308, and 8-13-309 shall comply with the following requirements:

503.1 The person shall maintain and have available during an inspection, a current list of coatings in use which provides all of the coating data necessary to evaluate compliance including the following information, as applicable:

a. Coating, catalyst and reducer used
b. Mix ratio of components used
c. VOC content of coating as applied

503.2 A person shall have monthly records that provide the following information on a daily basis, as applicable:

a. Type of coating used
b. Mix ratio of materials added to coating
c. Quantity of each coating applied
d. VOC content of each coating as applied

503.3 The person shall maintain records on a monthly basis showing the type and amount of solvent used for cleanup and surface preparation.

503.4 Such records shall be retained and available for inspection by the APCO for the previous 24-month period. (Adopted September 20, 1989)

8-13-504 **Air Pollution Abatement Equipment, Recordkeeping Requirements:** Any person operating air pollution abatement equipment to comply with Sections 8-13-306, 307 and 308, in addition to Section 8-13-503 shall record an applicable key system operating parameter(s) on a daily basis. (Adopted June 15, 1994)

8-13-600 MANUAL OF PROCEDURES

8-13-601 **Analysis of Samples:** Samples of volatile organic compounds as specified in Section 8-13-300 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 21 or 22. (Adopted March 17, 1982)

8-13-602 **Determination of Emissions:** Emissions of volatile organic compounds as specified in Sections 8-13-306, 8-13-307, and 8-13-308 shall be measured as prescribed by any of the following methods 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. When either EPA Method 25, or 25A is used, control device equivalency shall be determined as prescribed in 55 FR 26865 (June 29, 1990). A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule.

(Adopted March 17, 1982; Amended September 20, 1989; June 15, 1994)

8-13-603 **Determination of Compliance, including Transfer Efficiency:** Determination of compliance, including transfer efficiency, to verify compliance with Section 8-13-302 and for reporting under subsection 8-13-406.4 shall be as prescribed in EPA Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations, dated December 1988.

(Adopted September 20, 1989)

REGULATION 8
ORGANIC COMPOUNDS
RULE 14
SURFACE PREPARATION AND COATING OF LARGE APPLIANCES AND METAL FURNITURE

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REGULATION 8
ORGANIC COMPOUNDS
RULE 14
SURFACE PREPARATION AND COATING OF LARGE APPLIANCES AND METAL FURNITURE

(Adopted March 7, 1979)

8-14-100 GENERAL

8-14-101 Description: The purpose of this Rule is to limit emissions of volatile organic compounds (VOC) from the surface preparation and coating of large appliances and metal furniture. Any operation which is determined to be exempt from the provisions of this Rule shall be subject to the provisions of Rule 4, if not already subject to another rule of Regulation 8.

(Amended 12/19/84; 6/7/89; 10/16/02)

8-14-110 Exemption, Low Usage Coatings: The requirements of Sections 8-14-301 and 302 shall not apply to the use of any coating used in volumes less than 75.7 liters (20 gal) in any one calendar year, provided the requirements in Section 8-14-402 are satisfied. A person shall be limited to 208.1 liters (55 gallons) total coating per year under this exemption.

(Amended 12/19/84; 1/7/87; 6/7/89; 6/1/94)

8-14-111 Exemption Touch-up: The provisions of this Rule shall not apply to touch-up operations.

(Amended 3/3/82; 1/7/87)

8-14-112 Exemption, Adhesives: The provisions of this Rule shall not apply to the application of adhesives.

(Adopted January 7, 1987)

8-14-113 Exemption, Aerosol Cans: The provisions of this Rule shall not apply to coating operations employing hand-held aerosol cans. Such coating is subject to the provisions of Regulation 8, Rule 49 or to the California Air Resources Board aerosol coating product regulation found in Title 17 of the California Code of Regulations, beginning at Section 94520.

(Adopted 1/7/87; Amended 6/20/90; 10/16/02)

8-14-114 Exemption Powder Coatings: The requirements of Sections 8-14-302 and 310 shall not apply to the use of any powder coating provided the emission of VOC to the atmosphere does not exceed that which is equivalent to the use of coatings which comply with those limits.

(Adopted1/7/87; Amended 4/1/87; 6/7/89)

8-14-115 Deleted April 1, 1987
8-14-116 Deleted April 1, 1987
8-14-117 Deleted April 1, 1987
8-14-118 Deleted April 1, 1987
8-14-119 Deleted April 1, 1987

8-14-120 Limited Exemption, Specific Surface Preparation and Cleaning Operations: The surface preparation standards in Section 8-14-321 shall not apply to (i) surface preparation of electrical and electronic components, (ii) stripping of cured inks, coatings and adhesives or cleaning of resin, coating, ink and adhesive mixing, molding and application equipment, or (iii) surface preparation associated with research and development operations; performance testing to determine coating, adhesive or ink performance; or testing for quality control or quality assurance purposes.

(Adopted October 16, 2002)

8-14-200 DEFINITIONS

8-14-201 **Air-Dried Coatings:** Any coating which is not heated above 90°C (194°F) for the purpose of curing or drying.

8-14-202 **Baked Coatings:** Any coating which is cured or dried in an oven where the oven air temperature exceeds 90°C (194°F).

(Amended December 19, 1984)

8-14-203 **Deleted June 7, 1989**

8-14-204 **Large Appliances:** Doors, cases, lids, panels and interior support parts of residential or commercial washers, dryers, ranges, refrigerators, freezers, water heaters, dishwashers, trash compactors, air conditioners and other similar products.

8-14-205 **Metal Furniture:** Includes tables, chairs, waste baskets, beds, dishes, lockers, benches, shelving, file cabinets, room dividers, drapery hardware, window blinds and shades or other similar products or parts used to fabricate such products.

(Amended January 7, 1987)

8-14-206 **Volatile Organic Compound:** Any organic compound (excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate) which would be emitted during use, application, curing or drying of a solvent or surface coating.

206.1 For purposes of calculating VOC content of a coating, any water or any of the following non-precursor organic compounds:

acetone
methyl acetate
parachlorobenzotrifluoride (PCBTF)
cyclic, branched or linear, completely methylated siloxanes (VMS)

shall not be considered to be part of the coating.

206.2 For the purposes of calculating the VOC content of a surface preparation or cleaning solvent, any water or the non-precursor organic compounds listed in subsection 8-19-206.1, above, shall be considered part of the volume of solvent but shall not be considered part of the VOC content of the solvent.

(Amended 1/7/87; 6/7/89; 12/20/95; 10/16/02)

8-14-207 **Touch-up:** That portion of the surface preparation or coating operation which is incidental to the main coating process but necessary to cover minor imperfections or mechanical damage incurred prior to intended use.

(Amended 12/19/84;1/7/87; 10/16/02)

8-14-208 **Transfer Efficiency:** The ratio of the amount of coating solids adhering to the object being coated to the total amount of coating solids used in the application process, expressed as a percentage.

(Amended 3/3/82; 1/7/87)

8-14-209 **Pretreatment Wash Primer:** Any coating which contains a minimum of 0.5% acid by weight, is necessary to provide surface etching and is applied directly to bare metal surfaces to provide corrosion resistance and adhesion.

(Adopted 1/7/87; Amended 6/7/89)

8-14-210 **Powder Coating:** Any coating applied as a dry (without solvent or other carrier), finely divided solid which, when melted and fused, adheres to the substrate as a paint film.

(Adopted January 7, 1987)

8-14-211 **Adhesive:** Any coating which is applied for the purpose of bonding surfaces together.

(Adopted January 7, 1987)

8-14-212 **Solar Absorbant Coating:** Any coating which has as its primary purpose the absorption of solar radiation.

(Adopted January 7, 1987)

8-14-213 **Heat-Resistant Coating:** Any coating which during normal use must withstand temperatures of at least 204°C (400°F).

(Adopted January 7, 1987)

8-14-215 **Metallic Topcoats:** Any coating which contains more than 5 g/l (0.042 lb/gal) of metal particles, as identified on a technical or material safety data sheet , as applied, where such metal particles are visible in the dried film.

(Adopted 1/7/87; Amended 6/1/94)

8-14-216 **High-Gloss Coating:** Any coating which achieves at least 85% reflectance on a 60° meter when tested by ASTM Method D-523-1989.

(Adopted 1/7/87; Amended 6/7/89; 10/6/93)

8-14-217 **Deleted June 7, 1989**

8-14-218 **High-Volume, Low-Pressure (HVLP) Spray**: Equipment used to apply coating by means of a gun which is designed to be operated and which is operated between 0.1 and 10.0 psig air atomizing pressure measured dynamically at the center of the air cap and at the air horns.

(Adopted 6/7/89; Amended 10/6/93; 10/16/02)

8-14-219 **Electrostatic Application**: The application of charged atomized paint droplets which are deposited by electrostatic attraction.

(Adopted June 7, 1989)

8-14-220 **Key System Operating Parameter**: An air pollution abatement equipment operating parameter, such as temperature, flow rate or pressure, that ensures operation of the abatement equipment within manufacturer specifications and compliance with the standards in Sections 8-14-302, and 310.

(Adopted June 1, 1994)

8-14-221 **Approved Emission Control System:** A system for reducing emissions to the atmosphere, consisting of an abatement device and a collection system, which achieves the abatement efficiency specified in the applicable standards at all times during the operation and meets the requirements of Regulation 2, Rule 1.

(Adopted October 16, 2002)

8-14-222 **Surface Preparation:** The cleaning of large appliances and metal furniture prior to coating, further treatment, sale, or intended use. Surface preparation of large appliances and metal furniture subject to and in compliance with Regulation 8, Rule 16: Solvent Cleaning Operations, is not subject to the surface preparation standards in this Rule.

(Adopted October 16, 2002)

8-14-223 **Electrical and Electronic Components**: Components and assemblies of components that generate, convert, transmit, or modify electrical energy. Electrical and electronic components include, but are not limited to, wires, windings, stators, rotors, magnets, contacts, relays, printed circuit boards, printed wire assemblies, wiring boards, integrated circuits, resistors, capacitors and transistors. Cabinets in which electrical and electronic components are housed are not considered electrical and electronic components.

(Adopted October 16, 2002)

8-14-300 **STANDARDS**

8-14-301 **Deleted June 7, 1989**

8-14-302 **Limits:** A person shall not apply to any large appliance or metal furniture part or product any coating with a VOC content in excess of the following limits, expressed as grams of VOC per liter of coating applied, excluding water, unless emissions to the atmosphere are controlled to an equivalent level by air pollution abatement equipment with an abatement device efficiency of at least 85% that meets the requirements of Regulation 2, Rule 1.

302.1	Baked Coatings	275 grams/liter (2.3 lbs/gal)
302.2	Air-Dried Coatings	340 grams/liter (2.8 lbs/gal)

(Amended 3/3/82; 12/19/84; 1/7/87; 6/7/89; 10/6/93)

8-14-303 **Deleted June 7, 1989**

8-14-304 **Transfer Efficiency:** All persons subject to this Rule shall use a method of coating application with a transfer efficiency of 65% or greater. Application by properly operated electrostatic application or HVLP spray, flow coat, roller coat, dip coat including electrodeposition and brush coat will serve to comply with this section.

(Amended 3/3/82; 12/19/84; 6/7/89)

8-14-305 **Deleted October 6, 1993**

8-14-306 **Deleted June 7, 1989**

8-14-307 **Deleted June 7, 1989**

8-14-308 **Prohibition of Specification:** No person shall require for use or specify the application of a coating or solvent subject to this Rule if such use or application results in a violation of any of the provisions of this Rule. The prohibition of this Section shall apply to all written or oral contracts under the terms of which any coating or solvent is to be applied to any large appliance for metal furniture product at any physical location within the District.

(Adopted 1/7/87; Amended 6/7/89; 10/16/02)

8-14-309 **Compliance Statement Requirement:** The manufacturer of coatings or solvents subject to this Rule shall include a designation of VOC as defined in Section 8-14-206.

(Adopted 6/7/87; Amended 4/1/87; 6/7/89; 10/16/02)

8-14-310 **Specialty Coating Limitations**: A person shall not apply to any large appliance or metal furniture any specialty coating with a VOC content in excess of the following limits, expressed as grams of VOC per liter (lb VOC per gal) of coating applied, excluding water, unless emissions to the atmosphere are controlled to an equivalent level by air pollution abatement equipment with an abatement device efficiency of at least 85% that meets the requirements of Regulation 2, Rule 1.

		Baked	Air-Dried
310.1	High-Gloss	360 (3.0)	420 (3.5)
310.2	Heat-Resistant	360 (3.0)	420 (3.5)
310.3	Metallic Topcoat	360 (3.0)	420 (3.5)
310.4	Pretreatment Wash Primer	420 (3.5)	420 (3.5)
310.5	Solar Absorbant	360 (3.0)	420 (3.5)

(Adopted 4/1/87; Amended 6/7/89; 10/6/93)

8-14-320 **Solvent Evaporative Loss Minimization**: Unless emissions to the atmosphere are controlled by an approved emission control system with an overall abatement efficiency of at least 85%, any person using organic solvent for surface preparation or cleanup:

320.1 Shall use closed containers for the storage or disposal of cloth or paper used for solvent surface preparation and cleanup.

320.2 Shall close containers of fresh or spent solvent, coating or catalyst when not in use.

320.3 Shall not use volatile organic compounds for the cleanup of spray equipment including paint lines with a VOC content in excess of 50 g/l (0.42 lbs/gal) unless the VOC can be pressurized through spray equipment with the atomizing air off and collected and stored in a closed container until recycled or properly disposed of offsite.

(Adopted 6/7/89; Amended 10/16/02)

8-14-321 **Surface Preparation Standards:** Effective June 1, 2003, no person shall use a surface preparation solvent with a VOC content that exceeds 50 g/l (0.42 lbs/gal) for surface preparation of any metal part or product unless emissions to the atmosphere are controlled to an equivalent level by an approved emission control system with an abatement device efficiency of at least 85 percent that meets the requirements of Regulation 2, Rule 1.

(Adopted October 16, 2002)

8-14-400 **ADMINISTRATIVE REQUIREMENTS**

8-14-401 **Deleted December 19, 1984**

8-14-402 **Low Usage Coating Petition:** Any person seeking to satisfy the conditions of Section 8-14-110 shall comply with the following requirements:

402.1 The user or specifier shall petition the APCO in writing that substitute complying coatings are not available.

402.2 If the APCO grants written approval, such petition will be repeated on an annual basis.

402.3 If the APCO grants written approval, such approval shall contain volume and VOC limit conditions.

402.4 Records shall be maintained as in Section 8-14-501.

(Adopted 3/3/82; Amended 12/19/84; 1/7/87; 6/7/89; 10/6/93)

8-14-403 Deleted June 7, 1989

8-14-500 MONITORING AND RECORDS

8-14-501 Coating Records: Any person using coatings or solvents subject to this Rule shall:

501.1 Maintain a current list of coatings in use which provides all of the coating data necessary to evaluate compliance, including the following information, as applicable:

a. coating, catalyst and reducer used
b. quantity of each coating applied
c. VOC content of coating as applied
d. VOC content of surface preparation and clean up solvent, as applied.

501.2 Record on a daily basis the following information, as applicable:

a. coating and mix ratio of components in the coating used
b. quantity of each coating applied
c. identification of specialty coating limit category
d. oven temperature

501.3 Record on a monthly basis the type and amount of surface preparation and clean up solvent unless more frequently specified in permit conditions imposed per Regulation 2-1-403.

501.4 Retain and have the records available for inspection by the APCO for two years.

(Adopted 12/19/84; Amended 1/7/87; 4/1/87; 6/7/89; 6/1/94; 10/16/02)

8-14-502 Deleted October 6, 1993

8-14-503 Air Pollution Abatement Equipment, Recordkeeping Requirements: Any person operating air pollution abatement equipment to comply with Sections 8-14-302, 310, 320 and/or 321, in addition to Section 8-14-501 shall record key system operating parameters on a daily basis.

(Adopted 6/1/94; Amended 10/16/02)

8-14-600 MANUAL OF PROCEDURES

8-14-601 Analysis of Samples: Samples of volatile organic compounds as specified in Sections 8-14-302 and 310 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 21 or 22.

(Adopted 3/17/82; Amended 12/19/84; 1/7/87; 4/1/87; 6/7/89)

8-14-602 Determination of Emissions: Emissions of volatile organic compounds as specified in Sections 8-14-302, 310, 320 and/or 321 shall be measured as prescribed by any of the following methods: 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. When either EPA Method 25 or 25A is used, control device equivalency shall be determined as prescribed in 55 FR 26865 (June 29, 1990). A source shall be considered in violation if the VOC emissions measured by any one of the referenced test methods exceed the standards of this rule.

(Adopted 3/17/82; Amended 12/19/84; 1/7/87; 6/7/89; 6/1/94; 10/16/02)

8-14-603 Determination of Acid Content: Measurement of acid content as specified in Section 8-14-209 shall be determined in accordance with ASTM Method D-1613-96.

(Adopted 10/6/93; Amended 10/16/02)

8-14-604 Analysis of Solvent Samples: Samples of volatile organic compounds as specified in Section 8-14-320 or 321 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 31.

(Adopted October 16, 2002)

8-14-605 Analysis of Exempt Compounds: Samples of PCBTF, VMS, and methyl acetate shall be analyzed by the Manual of Procedures, Volume III, Method 41, 43 and by ASTM Method D-6133-00, respectively.

(Adopted October 16, 2002)

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REGULATION 8
ORGANIC COMPOUNDS
RULE 15
EMULSIFIED AND LIQUID ASPHALTS
(Adopted March 21, 1979)

8-15-100 GENERAL

8-15-101 **Description:** The purpose of this Rule is to limit the emissions of volatile organic compounds caused by the use of Emulsified and Liquid asphalt in paving materials and paving and maintenance operations. (Amended September 16, 1987)

8-15-110 Deleted September 16, 1987

8-15-111 Deleted September 16, 1987

8-15-112 **Exemptions, Cool Weather:** The requirements of Section 8-15-302 (medium-cure liquid asphalt) shall not apply when the National Weather Service forecasts that atmospheric temperature for the 24-hour period following application will not exceed 10oC (50oF). (Amended September 16, 1987)

8-15-200 DEFINITIONS

8-15-201 **Asphalt:** The dark brown to black cementitious material (solid or liquid) of which the main constituents are bitumens which occur naturally or as a residue of petroleum refining.

8-15-202 **Liquid Asphalt:** Any asphalt which has been liquified by blending with petroleum solvents. (Amended September 16, 1987)

8-15-203 **Emulsified Asphalt:** Any asphalt liquified with water containing an emulsifier.

8-15-204 **Medium-cure Liquid Asphalt:** A liquid asphalt which meets the standard specifications of ASTM Designation D2027. (Amended September 16, 1987)

8-15-205 **Paving Material:** A mixture consisting mainly of an asphalt and aggregate.

8-15-206 **Paving and Maintenance Operations:** All activities involved in the new construction and maintenance of roadways and parking areas.

8-15-207 **Deleted September 16, 1987**

8-15-208 **Rapid-cure Liquid Asphalt:** A liquid asphalt which meets the standard specifications of ASTM Designation D2028. (Amended September 16, 1987)

8-15-209 **Slow-cure Liquid Asphalt (Road Oil):** A liquid asphalt which meets the standard specifications of ASTM Designation D2026. For purposes of this Regulation, Road Oil and Slow-cure Liquid Asphalt shall be synonymous.
(Amended September 16, 1987)

8-15-300 STANDARDS

8-15-301 **Rapid-cure Liquid Asphalt:** A person shall not use any rapid-cure liquid asphalt in paving material or in paving and maintenance operations.
(Amended September 16, 1987)

8-15-302 **Medium-cure Liquid Asphalt:** A person shall not use, except as provided in Section 8-15-112, any medium-cure liquid asphalt in paving material or in paving and maintenance operations. (Amended September 16, 1987)

8-15-303 **Emulsified Asphalt:** A person shall not use any emulsified asphalt containing petroleum solvents in excess of 3% by volume in paving material or in paving and maintenance operations. (Amended September 16, 1987)

8-15-304 **Slow-cure Liquid Asphalt (Road Oil):** A person shall not use any slow-cure liquid asphalt which contains more than 0.5 percent by volume of petroleum solvents which boil at less than 260oC (500oF) as determined by ASTM Distillation Method D402 in paving material or in paving and maintenance operations.

(Adopted September 16, 1987)

8-15-305 **Prohibition of Manufacture and Sale:** No person shall manufacture, offer for sale or sell a liquid asphalt or emulsified asphalt product if such product is prohibited by any of the provisions of this rule. The prohibition of this section shall apply to the manufacture and sale of any liquid asphalt or emulsified asphalt product which will be applied at any physical location within the District.

(Adopted September 16, 1987)

8-15-306 **Prohibition of Specification:** No person shall require for use or specify the application of a liquid asphalt or emulsified asphalt product if such product is prohibited by any of the provisions of this rule. The prohibition of this Section shall apply to all written or oral contracts under the terms of which any liquid asphalt or emulsified asphalt product is to be applied at any physical location within the District.

(Adopted September 16, 1987)

8-15-500 **MONITORING AND RECORDS**

8-15-501 **Records:** Any person who manufactures, sells, or offers for sale liquid asphalts and emulsified asphalts which contain solvents shall comply with the following requirements:

501.1 Maintain records showing the types and amounts of liquid asphalts and emulsified asphalts which contain solvents produced, sold, or applied, and the destination of these products.

501.2 Such records shall be retained and available for inspection by the APCO for the previous 24-month period.

(Adopted September 16, 1987; Amended June 1, 1994)

8-15-600 **MANUAL OF PROCEDURES**

8-15-601 **Analysis of Liquid Asphalt Samples:** Samples of volatile organic compounds as specified in Sections 8-15-301, 302 and 304 shall be analyzed in accordance with ASTM Distillation Method D402. (Adopted September 16, 1987)

8-15-602 **Analysis of Emulsified Asphalt Samples:** Samples of volatile organic compounds as specified in Section 8-15-303 shall be analyzed in accordance with ASTM Distillation Method D244. (Adopted September 16, 1987)

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REGULATION 8
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RULE 16
SOLVENT CLEANING OPERATIONS

(Adopted March 7, 1979)

8-16-100 GENERAL

8-16-101 Description: The purpose of this Rule is to limit emissions from solvent cleaning operations as defined in Section 8-16-220. Any operation which is determined to be exempt from the provisions of this Rule shall be subject to the provisions of Rule 4, if not already subject to another Rule of Regulation 8.

(Amended 7/3/85; 8/2/89; 9/16/98)

8-16-110 Deleted, September 16, 1998

8-16-111 Exemption, Wipe Cleaning: The requirements of Section 8-16-301 through 304 of this Rule shall not apply to any solvent cleaning operation using only wipe cleaning. In addition to any VOC limitations in other Regulation 8 rules, wipe cleaning is subject to the requirements of Section 8-16-501.3, and may be subject to VOC limitations in other Regulation 8 rules.

(Amended 7/3/85; 9/16/98; 10/16/02)

8-16-112 Exemption, Semiconductor Solvent Cleaners: The requirements of this Rule shall not apply to solvent sinks with less than 10 gallons of capacity, enclosed solvent cleaners or solvent vapor dryers at semiconductor manufacturing operations, which are subject to the requirements of Regulation 8, Rule 30.

(Adopted 7/3/85; Amended 3/16/88; 8/2/89; 9/16/98)

8-16-113 Exemption, Aerospace Stripping Operations: The requirements of this Rule shall not apply to stripping operations in aerospace assembly and component coating operations, which are subject to the requirements of Regulation 8, Rule 29.

(Adopted July 3, 1985)

8-16-114 Exemption, Emulsion or Solution Cleaners: The requirements of this rule shall not apply to solvent cleaning operations which employ only emulsion or solution cleaners, each containing less than one percent of volatile organic compounds by weight.

(Adopted 3/16/88; Amended 8/2/89; 9/16/98; 10/16/02)

8-16-115 Limited Exemption, Small, Unheated Solvent Cleaning Equipment: Except for the requirements in subsections 8-16-303.1, 303.3.1, and 303.3.2, the requirements of this Rule shall not apply to equipment or operations that use unheated solvent and that contain less than 3.785 liters (1 gal) of solvent, including volume in any remote reservoir, or have an evaporative area of less than 929 cm^2 (144 in^2 or 1 ft^2).

(Adopted 3/16/88; Amended 8/2/89; 9/16/98; 10/16/02)

8-16-116 Exemption, Vapor Phase Solder Reflow Operations: The requirements of this Rule shall not apply to vapor phase solder reflow operations in printed circuit board manufacture and assembly operations, which are subject to the requirements of Regulation 8, Rule 4.

(Adopted March 16, 1988)

8-16-117 Exemption, Dry Cleaning Operations: The requirements of this Rule shall not apply to dry cleaning operations subject to Regulation 8, Rule 17 or Regulation 11, Rule 16.

(Adopted 8/2/89; Amended 9/16/98)

8-16-118 Limited Exemption, Compounds with Low Volatility: Solvent cleaning operations utilizing a compound with low volatility shall not be subject to the following requirements:

118.1 Conveyorized Solvent Cleaners: Subsections 302.3, and 302.5.

118.2 Cold Cleaners: Subsection 303.4.

(Adopted 8/2/89; Amended 10/16/02)

8-16-119 Limited Exemption, Sealed Chamber Solvent Cleaners: The requirements of subsections 302.1.6 and 302.3.2 shall not apply to the sealed chamber portion of conveyorized solvent cleaners.

(Adopted August 2, 1989)

8-16-120 **Exemption, Stripping Operations:** The requirements of this Rule shall not apply to stripping operations such as dry film stripping operations in printed circuit board manufacturing. These operations are subject to the requirements of Regulation 8, Rule 4. Tank type stripping operations in aerospace assembly and component coating operations are subject to the requirements of Regulation 8, Rule 29.

(Adopted September 16, 1998)

8-16-121 **Limited Exemption, Single Cold Cleaner**: Until June 1, 2003, the VOC content limitation in Section 8-16-303.5 for cleaning solutions used in cold cleaners does not apply to one cold cleaner per facility, provided that annual solvent loss from that cold cleaner does not exceed 20 gallons per year.

(Adopted 9/16/98; Amended 10/16/02)

8-16-122 **Limited Exemption, Permitted Cold Cleaners**: Until June 1, 2003, the VOC content limitation in Section 8-16-303.5 for cleaning solutions used in cold cleaners does not apply to any cold cleaner for which a District permit to operate has been obtained pursuant to Regulation 2, Rule 1.

(Adopted 9/16/98; Amended 10/16/02)

8-16-123 **Limited Exemption, Specific Cleaning Operations**: Effective June 1, 2003, Section 8-16-303.5 shall not apply to (i) the cleaning of aerospace components, electrical and electronic components, precision optics, medical devices, or cleaning of resin, coating, ink and adhesive mixing, molding and application equipment; or (ii) cleaning associated with research and development operations; performance testing to determine coating, adhesive or ink performance; or testing for quality control or quality assurance purposes.

(Adopted October 16, 2002)

8-16-124 **Limited Exemption, Low VOC Cleaning Operations**: The recordkeeping requirements of Section 8-16-501 shall not apply to any cold cleaners that comply with Section 8-16-303.5.1. However, they are subject to Section 8-16-502.

(Adopted October 16, 2002)

8-16-200 **DEFINITIONS**

8-16-201 **Approved Emission Control Device:** A device for reducing emissions of volatile organic compounds (VOC) to the atmosphere, consisting of a control device and a collection system, which meets the requirements of Regulation 2, Rule 1 and which satisfies the following conditions:

201.1 The control device shall achieve the control efficiency specified in the applicable standards section at all times during normal operation of the equipment being controlled.

201.2 The collection system shall have a ventilation rate of 15-20 m^3/min per m^2 (49.2-65.6 ft^3/min per ft^2) of solvent cleaner opening unless necessary to meet OSHA requirements and have one or more inlets for collection of emissions or meet the requirements of Regulation 2, Rule 1.

201.3 The collection system shall be designed and operated in accordance with good engineering practice for maximum collection of emissions.

(Adopted 8/2/89; Amended 9/16/98)

8-16-202 **Airless Solvent Cleaner:** Any enclosed solvent cleaner that is automatically operated, seals at a differential pressure of 26 torr or less prior to the introduction of solvent vapor into the cleaning chamber, and maintains differential pressure under vacuum during all cleaning and drying cycles.

(Adopted September 16, 1998)

8-16-203 **Airtight Solvent Cleaner:** Any enclosed solvent cleaner that is automatically operated and seals at a differential pressure no greater than 0.5 psi during all cleaning and drying cycles.

(Adopted September 16, 1998)

8-16-204 **Cold (Non-boiling) Cleaner:** Any solvent cleaner excluding conveyorized solvent cleaners and vapor solvent cleaners, including, but not limited to, spray sinks, spray booths, spray gun washers and batch-loaded dip tanks.

(Amended 7/3/85; 8/2/89; 9/16/98)

8-16-205 **Compounds with Low Volatility:** For the purpose of this rule, solvents with an initial boiling point (IBP) greater than 120°C (248°F) and where the initial boiling point exceeds the maximum operating temperature of a solvent cleaning operation by at least 100°C (180°F), shall be considered a low-volatile solvent.

(Adopted August 2, 1989)

8-16-206 **Condenser Flow Switch:** A safety switch which shuts off sump heat if condenser water fails to circulate or rises above the designated operating temperature.

(Adopted July 3, 1985)

8-16-207 **Conveyorized Solvent Cleaner:** Any continuously loaded, conveyorized cold or vapor solvent cleaner, including but not limited to gyro, vibra, monorail, cross-rod, mesh, belt and strip cleaners. Strip cleaners clean material by drawing the strip itself through the unit for cleaning prior to coating or other fabrication processes.

(Amended 3/16/88; 8/2/89)

8-16-208 **Enclosed Solvent Cleaner:** A solvent cleaner consisting of sealed tanks and a drained spray chamber including, but not limited to, spray gun cleaners, closed loop processors, and spray processors.

(Adopted September 16, 1998)

8-16-209 **Evaporative Area:**

209.1 Cold Cleaner:

1.1 General: The surface area of the top of the solvent.

1.2 Enclosed Reservoir: The surface area of the solvent sink or work area.

209.2 Vapor Solvent Cleaner: The surface area of the top of the solvent vapor-air interface.

209.3 Conveyorized Solvent Cleaner:

3.1 Cold Cleaner: Definition in subsection 209.1.

3.2 Vapor Solvent Cleaner: Definition in subsection 209.2.

(Adopted August 2, 1989)

8-16-210 **Freeboard Chiller:**

210.1 Cold Cleaners: A condenser mounted in the freeboard area which provides a chilled air blanket above the solvent to reduce emissions.

210.2 Vapor Solvent Cleaner: A secondary condenser mounted above the primary condenser which provides a chilled air blanket above the solvent vapor air-interface to reduce emissions.

210.3 Conveyorized Solvent Cleaner:

3.1 Cold Cleaner: Definition in subsection 210.1.

3.2 Vapor Solvent Cleaner: Definition in subsection 210.2.

(Adopted August 2, 1989)

8-16-211 **Freeboard Height:**

211.1 Cold Cleaner: The vertical distance from the top of the evaporative area to the top of the cold cleaner.

211.2 Vapor Solvent Cleaner: The vertical distance from the evaporative area (solvent vapor-air interface) to the top of the solvent cleaner.

211.3 Conveyorized Solvent Cleaner: The vertical distance from the top of the evaporative area to the bottom of the lowest opening in the solvent cleaner.

(Amended August 2, 1989)

8-16-212 **Freeboard Ratio:** The freeboard height divided by the smaller of the length or width of the solvent cleaner evaporative area.

(Amended August 2, 1989)

8-16-213 **Initial Boiling Point:** Boiling point of a solvent as defined by ASTMD-1078-93.

(Adopted 8/2/89; Amended 9/16/98)

8-16-214 **Liquid Solvent Leak:** A liquid leak of 3 or more drops per minute.

(Adopted 8/2/89; Amended 10/16/02)

8-16-215 **Makeup Solvent:** Makeup solvent is solvent added to the solvent cleaning operation less the amount of solvent collected from the solvent cleaning operation.

(Adopted 7/3/85; Amended 8/2/89; 9/16/98)

8-16-216 **National Emission Standards for Hazardous Air Pollutants (NESHAP): Halogenated Solvent Cleaners:** Any solvent cleaner using any of the following six halogenated solvents: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride and chloroform.

(Adopted September 16, 1998)

8-16-217 **Remote Reservoir**: A liquid solvent tank which is completely enclosed except for a solvent return opening no larger than 100 cm^2 which allows used solvent to drain into it from a separate solvent sink or work area and which is not accessible for soaking parts.

(Adopted 3/16/88; Amended 8/2/89; 9/16/98)

8-16-218 **Sealed Chamber Solvent Cleaner:** A conveyorized solvent cleaner in which all spraying and most vapor generating activity is fully contained inside the machine and completely isolated from the outside environment.

(Adopted August 2, 1989)

8-16-219 **Solvent:** Organic compounds which are used as diluents, thinners, dissolvers, viscosity reducers, cleaning agents or for other similar uses.

(Adopted August 2, 1989)

8-16-220 **Solvent Cleaning Operations:** For the purpose of this rule, a solvent cleaning operation is any process, including wipe cleaning, used to clean or dry metal and non-metal surfaces typically using a cold, vapor or conveyorized solvent cleaner.

(Adopted September 16, 1998)

8-16-221 **Solvent Loss**: All solvent emitted to atmosphere including, but not limited to, carry out, drag out, working and idling emissions.

(Adopted September 16, 1998)

8-16-222 **Solvent Vapor Dryer**: A vapor solvent cleaner in which solvents are volatilized to displace water in precision parts drying.

(Adopted September 16, 1998)

8-16-223 **Spray Gun Cleaner:** A solvent cleaner used to clean spray application equipment.

(Adopted September 16, 1998)

8-16-224 **Spray Safety Switch:** A safety switch which cuts off the pump of the spray applicator if the vapor level drops below a specified level.

(Adopted July 3, 1985)

8-16-225 **Stripping**: The removal of cured coatings, inks, adhesives or maskants. Examples include, but are not limited to wood furniture stripping, metal parts stripping and dry film stripper operations.

(Adopted September 16, 1998)

8-16-226 **Vapor Concentration Exhaust Sensor**: A sensor in the exhaust duct that causes the controller to shut down the unit based on the vapor concentration level registering in the duct.

(Adopted September 16, 1998)

8-16-227 **Vapor Level Control Thermostat:** A safety switch which turns off the sump heater if the thermostat senses the temperature rising above the designed operating level at the air-vapor interface.

(Adopted 7/3/85; Amended 3/16/88)

8-16-228 **Vapor Solvent Cleaner:** Any solvent cleaner that cleans through the condensation of hot solvent vapor on colder parts and boils liquid solvent producing solvent vapor that is used during the cleaning or drying cycle.

(Amended 8/2/89; 9/16/98)

8-16-229 **Volatile Organic Compound (VOC):** Any organic compound of carbon (excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate) which would be emitted during use, processing, application, or drying of a solvent, or other material. The test methods specified in Section 8-16-602 shall be used to determine compliance with the VOC content standards in Section 8-16-303.5.1.

(Adopted 8/2/89; Amended 10/16/02)

8-16-230 **Waste Solvent Residue:** Sludge which may contain dirt, oil, metal parts, and/or other undesirable waste products concentrated after heat distillation of the waste solvent either in the solvent cleaner itself or after distillation in a separate still.

(Adopted 7/3/85; Amended 8/2/89)

8-16-231 **Water Flow Loss Sensor**: A sensor that indicates loss of incoming water flow to the condenser and stops processing to solvent vapor dryers. It is equivalent to a condenser flow switch.

(Adopted September 16, 1998)

8-16-232 **Wipe Cleaning:** That method of cleaning which utilizes a material such as a rag wetted with a solvent, coupled with a physical rubbing process to remove contaminants from surfaces.

(Amended July 3, 1985)

8-16-233 **Repair and Maintenance Cleaning:** Cleaning of a part or object that occurs after its original manufacture or after its intended use and that is intended to repair, maintain, or return the object or part to use. Cleaning of equipment that is used in a manufacturing process is considered repair and maintenance cleaning. Facilities that perform repair and maintenance cleaning include, but are not limited to, automotive repair facilities.

(Adopted October 16, 2002)

8-16-234 **Automotive Repair Facility:** A facility which repairs or services automobiles or other motor vehicles, including, but not limited to, motorcycle, industrial truck, farm equipment, earth moving equipment, or other mobile equipment. Repair activities include, but are not limited to, exhaust systems repair, tire retreading and/or repair, glass replacement, transmission repair, general maintenance and/or repair, and automotive equipment parts and components repair. For the purposes of this Rule, automotive painting is not considered a repair activity.

(Adopted October 16, 2002)

8-16-235 **Aerospace Components**: The fabricated part, assembly of parts or completed unit of any aircraft, helicopter, missile or space vehicle. For the purposes of this Rule, an aerospace component shall include any aerospace prototype or test model.

(Adopted October 16, 2002)

8-16-236 **Electrical and Electronic Components**: Components and assemblies of components that generate, convert, transmit, or modify electrical energy. Electrical and electronic components include, but are not limited to, wires, windings, stators, rotors, magnets, contacts, relays, printed circuit boards, printed wire assemblies, wiring boards, integrated circuits, resistors, capacitors and transistors. Cabinets in which electrical and electronic components are housed are not considered electrical and electronic components.

(Adopted October 16, 2002)

8-16-237 **Precision Optics:** The optical elements used in electro-optical devices that are designed to sense, detect, or transmit light energy, including specific wavelengths of light energy and changes of light energy levels.

(Adopted October 16, 2002)

8-16-238 **Medical Devices:** An instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent or other similar article, including any component or accessory that is (i) intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of diseases, or (ii) is intended to affect the structure or any function of the body, or (iii) is defined in the National Formulary or the United States Pharmacopoeia or any supplement to it.

(Adopted October 16, 2002)

8-16-239 **Key System Operating Parameter:** An operating parameter of an approved emission control device, such as temperature, flow rate or pressure, that ensures operation of the equipment within manufacturer specifications and compliance with the standards in subsections 8-16-301.4.3, 302.5.3, or 303.4.4.

(Adopted October 16, 2002)

8-16-300 **STANDARDS**

8-16-301 **Vapor Solvent Cleaner Requirements:** Any person who operates a vapor solvent cleaning device shall conform to the following requirements:

301.1 General Operating Requirements:

1.1 The vapor solvent cleaning equipment and emission control device shall be operated and maintained in proper working order.

1.2 Liquid solvent leaks shall be repaired immediately or the equipment shall be shut down.

1.3 Solvent, including waste solvent, shall not be stored or disposed of in a manner that will cause or allow evaporation into the atmosphere.

1.4 Waste solvent residues shall be disposed of by one of the following methods:

a. Where residues are treated prior to further offsite treatment, such residues shall be stored in covered containers to minimize evaporation prior to service pick-up.

b. Where residues are treated prior to final disposal at an appropriate waste disposal facility, such residues shall not contain more than 10 percent solvent by volume and shall be stored in covered containers.

1.5 Devices designed to cover the solvent shall not be removed except to process work or to perform maintenance.

1.6 Solvent carry-out shall be minimized by the following methods:

a. Rack parts for best drainage,

b. Vertical speed of a powered hoist, if one is used, shall not be more than 3.3 m/min (11 ft/min) when lowering and raising the parts,

c. Retain the workload in the vapor zone until condensation ceases,

d. For manual loading/unloading tip out any pools of solvent on the cleaned parts before removal, and

e. Do not remove parts from the solvent cleaner until visually dry.

1.7 If a solvent spray is utilized, all spraying must be done at least 10 cm (4 in) below the top of the vapor level or the spray must be totally enclosed during the washing, rinsing, and drying process. The stream pressure shall be low enough to prevent liquid splashing outside the container.

1.8 Ventilation fans shall not be positioned in such a way to disturb the vapor zone.

1.9 If a water separator is present, water shall not be visually detectable in the solvent returning from the water separator to the solvent cleaner.

1.10 The solvent cleaning of porous or absorbent materials in vapor solvent cleaners is prohibited.

1.11 The workload shall not occupy more than half the solvent cleaner's evaporative area.

301.2 Vapor Solvent Cleaner General Equipment Requirements shall include all of the following:

2.1 A container for the solvent and the articles being cleaned.

2.2 An apparatus, cover, or enclosed reservoir which reduces solvent evaporation when not processing work in the solvent cleaner. The cover must be designed to easily open and close without disturbing the vapor zone. Where a solvent cleaner is subject to Section 301.4.1 and the evaporative area is greater than 1.0 m^2 (10.8 ft^2), the cover must be powered.

2.3 A method for draining cleaned parts, so that drained solvent is returned to the container

2.4 A permanent, conspicuous label summarizing the applicable operating requirements contained in subsection 301.1.

301.3 Excluding enclosed solvent cleaners, Vapor Solvent Cleaner safety switches shall include all of the following:

3.1 Condenser flow switch (except where non-water refrigerant is used) or a water flow loss sensor,

3.2 Deleted September 16, 1998

3.3 Spray safety switch when a spray wand is used.

3.4 Vapor level control thermostat, or a vapor concentration exhaust sensor.

301.4 Vapor Solvent Cleaners shall not operate without one of the following control devices:

4.1 A physically verifiable, freeboard ratio greater than or equal to 0.75.

4.2 A freeboard chiller where the chilled air blanket temperature measured in °F at the coldest point on the vertical axis in the center of the solvent cleaner shall be no greater than 30 percent of the initial boiling point of the solvent used or 40°F.

4.3 An approved emission control device with a control efficiency of 90 percent or more on a mass basis.

4.4 An enclosed design in which the cover or door opens only when the dry part is entering or exiting the solvent cleaner unless the cleaner is an airless or airtight solvent cleaner.

301.5 Deleted March 16, 1988

(Amended 1/8/86; 3/16/88; 8/2/89; 6/15/94; 9/16/98; 10/16/02)

8-16-302 Conveyorized Solvent Cleaner Requirements: Any person who operates a conveyorized solvent cleaning device shall conform to the following requirements:

302.1 General Operating Requirements:

1.1 The solvent cleaning equipment and emission control shall be operated and maintained in proper working order.

1.2 Liquid solvent leaks shall be repaired immediately or the equipment shall be shut down.

1.3 Solvent, including waste solvent, shall not be stored or disposed of in a manner that will cause or allow evaporation into the atmosphere.

1.4 Waste solvent residues shall be disposed of by one of the following methods:

a. Where residues are treated prior to further offsite treatment such residues shall be stored in covered containers to minimize evaporation prior to service pick-up.

b. Where residues are treated prior to final disposal at an appropriate waste disposal facility, such residues shall not contain more than 10 percent solvent by volume and shall be stored in covered containers.

1.5 Devices designed to cover the solvent shall not be removed except to process work or to perform maintenance.

1.6 If a solvent spray is utilized in a conveyorized vapor solvent cleaner, all spraying must be done within the vapor zone. If a solvent flow is utilized in a conveyorized cold solvent cleaner, only a continuous fluid stream shall be used (not a fine, atomized, or shower type spray) unless an approved emission control device is used with a control efficiency of 90 percent or more on a mass basis. The stream pressure used in either type of conveyorized degreaser shall be low enough to prevent liquid splashing outside the container.

1.7 Solvent carry out shall be minimized by using one or more of the following methods, where applicable:

a. For Strip Cleaners:

(1) vertical conveyor speed shall be less than 3.3 m/min (11 ft/min), or

b. For Non-strip cleaners:

(1) vertical conveyor speed shall be less than 3.3 m/min (11 ft/min), and

(2) parts shall be racked for best drainage.

1.8 Other Operating Requirements for Conveyorized Solvent Cleaners:

a. Ventilation fans shall not be positioned in such a way as to direct air flow over the solvent cleaner openings.

b. Water shall not be visually detectable in solvent returning from the water separator to the solvent cleaner.

1.9 The solvent cleaning of porous or absorbent materials in conveyorized degreasers is prohibited.

302.2 Conveyorized Solvent Cleaner General Equipment Requirements shall include all of the following:

2.1 A container for the solvent and the articles being cleaned.

2.2 An apparatus, cover, or enclosed reservoir which reduces solvent evaporation when not processing work in the degreaser.

2.3 A method for draining cleaned parts, so that drained solvent is returned to the container.

2.4 A permanent, conspicuous label summarizing the applicable operating requirements contained in subsection 302.1.

302.3 Conveyorized Solvent Cleaners using a volatile solvent shall include all of the following safety switches:

3.1 Condenser flow switch except where non-water refrigerant is used.

3.2 Spray safety switch.

3.3 Vapor level control thermostat.

302.4 Conveyorized Solvent Cleaner Control Devices shall include the following:

4.1 A drying tunnel or other means, such as a rotating basket, sufficient to prevent cleaned parts from carrying out solvent liquid or vapor, and

4.2 Minimized entrances and exits which silhouette the work loads such that the average clearance between parts being conveyed and the edge of the solvent cleaner opening is less than 10 cm (4 in) or less than 10 percent of the opening width.

4.3 Down-time covers for closing off the entrance and exit during shutdown hours, or an equivalent device that covers at least 90 percent of the opening.

302.5 Conveyorized Solvent Cleaners shall not operate without one of the following control devices:

5.1 A freeboard ratio greater than or equal to 0.75.

5.2 A freeboard chiller where the chilled air blanket temperature measured in °F at the coldest point on the vertical axis in the center of the solvent cleaner shall be no greater than 30 percent of the initial boiling point of the solvent used or 40°F.

5.3 An approved emission control device with a control efficiency of 90 percent or more on a mass basis.

5.4 Deleted August 2, 1989

302.6 Deleted March 16, 1988

(Adopted 7/3/85; Amended 1/8/86; 3/16/88; 8/2/89; 6/15/94; 9/16/98; 10/16/02)

8-16-303 Cold Cleaner Requirements: Any person who operates a cold solvent cleaning device shall conform to the following requirements.

303.1 General Operating Requirements:

1.1 The solvent cleaning equipment and emission control shall be operated and maintained in proper working order.

1.2 Liquid solvent leaks shall be repaired immediately or the equipment shall be shut down.

1.3 Solvent, including waste solvent, shall not be stored or disposed of in a manner that will cause or allow evaporation into the atmosphere.

1.4 Waste solvent residues shall be disposed of by one of the following methods:

a. Where residues are treated prior to further offsite treatment such residues shall be stored in covered containers to minimize evaporation prior to service pick-up.

b. Where residues are treated prior to final disposal at an appropriate waste disposal facility, such residues shall not contain more than 10 percent solvent by volume and shall be stored in covered containers.

1.5 Devices designed to reduce solvent evaporation shall not be removed except to process work or to perform maintenance. Where a compound with low volatility or a VOC content that does not exceed 50 g/l (0.42 lb/gal) is being used, enclosed (remote) reservoirs are deemed equivalent equipment to closed covers.

1.6 If a solvent flow is utilized, only a continuous fluid stream shall be used (not a fine, atomized, or shower type spray), unless an approved emission control device is used with a control efficiency of 90 percent or more on a mass basis, or unless the solvent spray is totally enclosed during the washing, rinsing and drying process.

303.2 Cold Cleaner Operating Requirements:

2.1 Cleaned parts shall be drained until dripping ceases.

2.2 Solvent agitation shall be accomplished only by pump recirculation or by means of a mixer. Air agitation shall not be used.

2.3 The solvent cleaning of porous or absorbent materials in cold cleaners is prohibited.

303.3 Cold Cleaner General Equipment Requirements shall include all of the following:

3.1 A container for the solvent and the articles being cleaned.

3.2 An apparatus, cover, or enclosed (remote) reservoir which reduces solvent evaporation when not processing work in the solvent cleaner. If a compound with low volatility or a VOC content that does not exceed 50 g/l (0.42 lb/gal) is not being used or the solvent is agitated or heated, the cover must be designed so that it can be operated with one hand.

3.3 A method for draining cleaned parts, so that drained solvent is returned to the container. If a compound with low volatility or a VOC content that does not exceed 50 g/l (0.42 lb/gal) is not being used, then the drainage facility must be internal so that the parts are enclosed while draining. The drainage facility may be external where the internal type cannot fit into the cleaning system.

3.4 A permanent, conspicuous label summarizing the applicable operating requirements contained in subsection 303.1.

303.4 Except as provided in Section 8-16-303.5, cold cleaners shall not operate without one of the following control devices:

4.1 A freeboard ratio greater than or equal to 0.75 where the maximum solvent reservoir capacity is clearly marked by a suitable mechanical or physical means.

4.2 A water cover, provided the solvent is insoluble in and heavier than water.

4.3 A freeboard chiller where the chilled air blanket temperature measured in °F at the coldest point on the vertical axis in the center of the solvent cleaner shall be no greater than 30 percent of the initial boiling point of the solvent used or 40°F.

4.4 An approved emission control device which has a control efficiency of 90 percent or more on a mass basis.

4.5 An enclosed design in which the cover or door opens only when the dry part is entering or exiting the cold cleaner unless the cleaner is an airtight solvent cleaner.

303.5 Any person using a cold cleaner for repair and maintenance cleaning shall comply with one of the following requirements:

5.1 The VOC content of the cleaning solution shall not exceed 50 g/l (0.42 lb/gal); or

5.2 The cleaning solution shall be branched, cyclic, or linear completely methylated siloxane (VMS); or

5.3 The portion of the cleaning solution that is not VMS shall not exceed a VOC content of 50 g/l (0.42 lb/gal); or

5.4 The source complies with subsection 8-16-303.4.4.

(Adopted 7/3/85; Amended 1/8/86; 3/16/88; 8/2/89; 9/16/98; 10/16/02)

8-16-304 **National Emission Standards for Hazardous Air Pollutants (NESHAP): Halogenated Solvent Cleaner Requirements:** In addition to the requirements of this Rule, solvent cleaning equipment that contains any one or a combination of the halogenated solvents specified in Section 8-16-216 at a total concentration of 5 percent or more by weight is also subject to the federal requirements contained in 40 Code of Federal Regulations, Part 63, Subpart T. Buckets, pails, or beakers with capacities of 2 gallons or less are not subject to the federal requirements.

(Amended, Renumbered 7/3/85; Amended 3/16/88; 9/16/98)

8-16-305 **Compliance Statement Requirement:** The manufacturer of any solution used to comply with subsection 8-16-303.5 shall provide, on the container or as an accompanying data sheet, a designation of VOC content of the solvent (as defined in Section 8-16-229), including any dilution ratio necessary to achieve compliance with the standards in subsection 8-16-303.5.

(Adopted October 16, 2002)

8-16-400 ADMINISTRATIVE REQUIREMENTS

8-16-401 Deleted March 16, 1988
8-16-402 Deleted March 16, 1988
8-16-403 Deleted September 16, 1998
8-16-404 Deleted August 2, 1989

8-16-500 MONITORING AND RECORDS

8-16-501 **Solvent Records:** Any person subject to the requirements of this Rule shall keep the following records:

501.1 Deleted September 16, 1998

501.2 On a facility-wide, monthly basis, records showing the type and total amount of make-up solvent used in all solvent cleaning operations subject to this rule regardless of the number of cleaning operations involved.

501.3 On a monthly basis, records showing the type and amount of solvent subject to Section 8-16-111.

501.4 For solvent vapor dryers and enclosed solvent cleaners, monthly records of the type and total amount of makeup solvent on a per source basis.

501.5 Records shall be retained and available for inspection by the APCO for the previous 24-month period.

501.6 Information, such as purchase orders or hazardous waste manifests, that will allow the APCO to verify compliance with the solvent loss limitation in Section 8-16-121.

(Adopted 7/3/85; Amended 3/16/88; 8/2/89; 9/16/98; 10/16/02)

8-16-502 **Burden of Proof:** Any person claiming exemption pursuant to Section 8-16-114, 115, or 118 or a recordkeeping exemption pursuant to Section 8-16-124 shall have information available such as product data or material safety data sheets that would allow the APCO to verify the eligibility for the exemption.

(Adopted October 16, 2002)

8-16-503 **Approved Emission Control Device, Recordkeeping Requirements:** Any person operating air pollution abatement equipment to comply with subsections 8-16-301.4.3, 302.5.3 or 303.4.4 shall record applicable key system operating parameters on a daily basis.

(Adopted October 16, 2002)

8-16-600 MANUAL OF PROCEDURES

8-16-601 **Determination of Emissions:** Emissions of organic compounds as specified in subsections 301.4.3, 302.5.3, or 303.4.4 shall be measured as prescribed by any of the following methods: 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA

Method 25 or 25A. A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule.

(Amended 7/3/85; 3/16/88; 6/15/94; 9/16/98)

8-16-602 **Analysis of Samples:** Samples of organic compounds shall be analyzed using EPA Method 24, by the following applicable methods:

602.1 Manual of Procedures, Volume III, Method 31 for the determination of percent VOC by weight and VOC content as specified in Sections 8-16-114, and 303.5.

602.2 Manual of Procedures Volume III, Method 21 or 22 for the determination of percent solvent by volume as specified in subsections 8-16-301.1.4, 302.1.4 and 303.1.4.

602.3 ASTM D-1078-93 for the determination of initial boiling point as specified in Section 8-16-205.

602.4 Manual of Procedures, Volume III, Method 43 for the determination of volatile methylsiloxanes (VMS) as specified in subsections 8-16-303.5.2 and 303.5.3.

(Adopted 7/3/85; Amended 3/16/88; 8/2/89; 9/16/98; 10/16/02)

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REGULATION 8
ORGANIC COMPOUNDS
RULE 17
PETROLEUM DRY CLEANING OPERATIONS

(Adopted May 21, 1980)

8-17-100 GENERAL

8-17-101 Description: The purpose of this Rule is to limit the emissions of petroleum solvents used in dry cleaning facilities. (Amended March 20, 1985)

8-17-110 Exemption, Other Solvent: This Rule shall not apply to dry cleaning facilities that do not use petroleum solvent. (Amended March 20, 1985)

8-17-111 Exemption, Small Users: The provisions of Section 8-17-302 shall not apply to petroleum dry cleaning facilities installed prior to September 5, 1990, consuming less than 10,000 liters (2,642 gallons) of petroleum solvent per year, provided the requirements of Section 8-17-501 are met.

(Amended March 20, 1985, September 5, 1990)

8-17-200 DEFINITIONS

8-17-201 Petroleum Solvent: A clear petroleum distillate having a minimum flash point of 38°C (100°F) and the following distillation ranges: not less than 50 % over at 177°C (350°F), 90% over at 190°C (375°F), and the end point not higher than 210°C (410 °F). The distillation is performed at standard conditions.

8-17-202 Dry Cleaning Facility: Any facility engaged in the cleaning of fabrics or leather. The facility includes, but is not limited to washers, dryers, filters, purification systems, holding tanks, pumps, attendant piping and valves.
(Adopted March 20, 1985)

8-17-203 Solvent Recovery Dryer: A class of dry cleaning dryers that employ a condenser to condense and recover solvent vapors evaporated in a closed loop stream of heated air, together with the piping and ductwork used in the installation of this device.

(Adopted March 20, 1985)

8-17-204 Cartridge Filter: A discrete filter unit containing filter paper and activated carbon that traps and removes contaminants from petroleum solvent, together with the piping and ductwork used in the installation of this device.

8-17-205 Dry Weight of Articles Cleaned: The weight of articles prior to being cleaned in a petroleum solvent washer. (Adopted September 5, 1990)

8-17-206 Solvent Liquid Leak: A liquid leak of more than 3 drops per minute.

(Adopted September 5, 1990)

8-17-207 Solvent Vapor Leak: A vapor leak which is a visible mist.

(Adopted September 5, 1990)

8-17-208 Transfer Cart: A cart or container used for the transfer of wet articles from the washer to the dryer that has walls and a lid which is impervious to the solvent.

(Adopted September 5, 1990)

8-17-300 STANDARDS

8-17-301 Operating Requirements: A person shall not operate any petroleum dry cleaning facility unless all of the following requirements are satisfied:

301.1 There is no solvent liquid or solvent vapor leaking from any portion of the equipment or the leaking equipment shall not be operated.

301.2 Solvents and spent solvents are stored in closed containers, which may be equipped with vents approved by the Air Pollution Control Officer.

301.3 All washer and dryer traps, access doors, and other parts of these pieces of equipment, where solvent may be exposed to the atmosphere, are kept closed at all times except when required for proper operation or maintenance.

301.4 Cartridge filters are drained in the filter housing for at least 12 hours or placed in an enclosed device including a solvent recovery dryer until dry before being discarded.

301.5 All wastes from dry cleaning facilities must be maintained and transported in sealed containers and disposed of in accordance with Department of Health Services regulations.

301.6 Articles which have been cleaned must be transferred to the dryer within five minutes after they are removed from the washer, or shall be stored in closed transfer carts. (Amended March 20, 1985, September 5, 1990)

8-17-302 Emission Control Requirements: A person shall not operate any petroleum dry cleaning facility unless one of the following requirements is satisfied:

302.1 Add-On-Control Device: All exhaust gases from drying tumblers, washers, and cabinets are vented through an approved and properly functioning control device, which reduces the total emissions of precursor organic compounds by at least 85 percent by weight.

302.2 Solvent Recovery Dryer: A solvent recovery dryer that recovers at least 85% of petroleum solvent by weight shall be installed. For the purpose of determining compliance with the 85% recovery efficiency of this subsection, 3 kilograms of petroleum solvent emitted per 100 kilograms dry weight of articles cleaned shall be deemed to be in compliance. In addition, the petroleum solvent flow rate from the water separator of such recovery dryer shall not exceed 15 milliliters per minute at the termination of the recovery cycle.

302.3 Deleted September 5, 1990 (Amended March 20, 1985, September 5, 1990)

8-17-303 Solvent Filtration Requirement: A person shall not operate any solvent filtration system unless one of the following requirements is satisfied:

303.1 Reduce the total volatile organic compound content in all filtration wastes to

1.1 1 kilogram or less per 100 kilograms dry weight of articles cleaned, before disposal, and exposure to the atmosphere, or

1.2 No more than 0.25 kilograms of solvent per kilogram of solvent still or filter waste.

303.2 Install and operate a cartridge filter system.

(Adopted March 20, 1985, September 5, 1990)

8-17-400 ADMINISTRATIVE REQUIREMENTS

8-17-401 Deleted September 5, 1990

8-17-402 Deleted September 5, 1990

8-17-500 MONITORING AND RECORDS

8-17-501 Small User Records: Any person seeking to satisfy the condition of Section 8-17-111 shall maintain purchase records showing amounts of solvent purchased and solvent remaining in inventory. Such records shall be retained and available for inspection by the APCO for the previous 24-month period.
(Adopted September 5, 1990)

8-17-502 Solvent Filtration Records: Any person electing to be regulated by Subsection 8-17-303.1.1 shall maintain records of pre-washed weight of articles cleaned per load. Such records shall be retained and available for inspection by the APCO for the previous 24-month period. (Adopted September 5, 1990)

8-17-600 MANUAL OF PROCEDURES

8-17-601 Determination of Emissions: Emissions of organic compounds as specified in Section 8-17-302 shall be measured as prescribed in the Manual of Procedures, Volume IV, ST-7, dated November 1, 1989. (Amended September 5, 1990)

8-17-602 Analysis of Solvent Filtration Wastes: Samples of solvent filtration wastes as specified in subsection 8-17-303.1 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 38. (Adopted September 5, 1990)

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REGULATION 8
ORGANIC COMPOUNDS
RULE 18
EQUIPMENT LEAKS

(Adopted October 1, 1980)

8-18-100 GENERAL

8-18-101 Description: The purpose of this Rule is to limit emissions of organic compounds, including methane, from leaking equipment at petroleum refineries, chemical plants, bulk plants and bulk terminals including, but not limited to: valves, connectors, pumps, compressors, pressure relief devices, diaphragms, hatches, sight-glasses, fittings, sampling ports, meters, pipes, and vessels.

(Amended3/17/82; 3/4/92; 1/7/98)

8-18-110 Exemption, Controlled Seal Systems and Pressure Relief Devices: Except for Section 8-18-603, the provisions of this Rule shall not apply to seal systems and pressure relief devices vented to a vapor recovery or disposal system which reduces the emissions of organic compounds from the equipment by 95% or greater.

(Amended, Renumbered January 7, 1998)

8-18-111 Exemption, Small Facilities: The provisions of this rule shall not apply to facilities which have less than 100 valves or less than 10 pumps and compressors. Such facilities are subject to the requirements of Regulation 8, Rule 22.

(Adopted 3/4/92; Amended, Renumbered 1/7/98)

8-18-112 Exemption, Bulk Plant and Terminal Loading Racks: The provisions of this rule shall not apply to those connections at the interface between the loading rack and the vehicle being loaded.

(Adopted 3/4/92; Amended, Renumbered 1/7/98)

8-18-113 Limited Exemption, Initial Boiling Point: The provisions of Sections 8-18-400 shall not apply to equipment which handle organic liquids having an initial boiling point greater than 302° F.

(Adopted 3/4/92; Amended, Renumbered 1/7/98)

8-18-114 Limited Exemption, Research and Development: The provisions of Section 8-18-401, 402 and 502 shall not apply to research and development plants which produce only non-commercial products solely for research and development purposes.

(Adopted 3/4/92; Amended, Renumbered 1/7/98)

8-18-115 Limited Exemption, Storage Tanks: The provisions of this rule shall not apply to appurtenances on storage tanks including pressure relief devices, which are subject to requirements contained in Regulation 8, Rule 5: Storage of Organic Liquids.

(Adopted January 7, 1998)

8-18-116 Limited Exemption, Vacuum Service: The provisions of Section 8-18-400 and 502 shall not apply to equipment in vacuum service.

(Amended January 7, 1998)

8-18-117 Limited Exemption, Visual Inspection: The provisions of Section 8-18-403 shall not apply to days when a facility is not staffed.

(Amended, Renumbered January 7, 1998)

8-18-118 Deleted January 7, 1998

8-18-200 DEFINITIONS

8-18-201 Background: The ambient concentration of total organic compounds determined at least 3 meters (10 feet) upwind from the equipment to be inspected and not influenced by any specific emission point as indicated by a hydrocarbon analyzer specified by Section 8-18-501.

(Amended March 4, 1992)

8-18-202 Bulk Plants and Terminals: A distribution facility which is subject to Regulation 8, Rule 6, 33 or 39.

(Amended, Renumbered January 7, 1998)

8-18-203 Chemical Plant: Any facility engaged in producing organic or inorganic chemicals and/or manufacturing chemical products by chemical processes. Any facility or

operation that has 28 as the first two digits in their Standard Industrial Classification Code as determined from the Standard Industrial Classification Manual. Chemical plants include facilities that manufacture chemical products by chemical processes such as: industrial inorganic and organic chemicals; plastic and synthetic resins, synthetic rubber, synthetic and other man made fibers; drugs; soap, detergents and cleaning preparations, perfumes, cosmetic and other toilet preparations; paints, varnishes, lacquers, enamels and allied products; agricultural chemicals; safflower and sunflower oil extracts; re-refining. (Renumbered and Amended January 7, 1998)

8-18-204 **Connection:** Flanged, screwed, or other joined fittings used to connect equipment.

(Amended, Renumbered January 7, 1998)

8-18-205 **Equipment:** All components including, but not limited to: valves, pumps, compressors, pressure relief devices, diaphragms, hatches, fittings, sampling ports, pipes, plugs, open-ended lines, gages or sight-glasses.

(Amended, Renumbered January 7, 1998)

8-18-206 **Inaccessible Equipment**: Any equipment located over 13 feet above the ground when access is required from the ground; or any equipment located over 6.5 feet away from a platform when access is required from a platform.

(Amended, Renumbered January 7, 1998)

8-18-207 **Inspection:** The determination of the concentration of total organic compounds leaking from equipment using EPA Reference Method 21 as required by Section 8-18-501.

(Amended, Renumbered January 7, 1998)

8-18-208 **Leak:** The concentration of total organic compounds measured above background, measured 1 centimeter or less from the leak, expressed as methane and measured using EPA Reference Method 21.

(Amended, Renumbered January 7, 1998)

8-18-209 **Leak Minimization:** Reducing the leak to the lowest achievable level using best modern practices and without shutting down the process the equipment serves.

(Renumbered3/17/82; Amended 3/4/92; 1/7/98)

8-18-210 **Leak Repair:** The tightening, adjustment, or addition of packing material, or the replacement of the equipment, which reduces the leakage to the atmosphere below the applicable standard in Section 8-18-300.

(Renumbered 3/17/82; Amended 3/4/92; 1/7/98)

8-18-211 **Liquid Leak:** Dripping of liquid at a rate of greater than 3 drops per minute and a concentration of total organic compounds greater than the applicable leak standard in Section 8-18-300.

(Amended, Renumbered January 7, 1998)

8-18-212 **Organic Compound:** Any compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate.

(Amended, Renumbered January 7, 1998)

8-18-213 **Petroleum Refinery:** Any facility that processes petroleum products as defined in Standard Industrial Classification Manual as Industry No. 2911, Petroleum Refining.

(Amended, Renumbered January 7, 1998)

8-18-214 **Pressure Relief Device:** The automatic pressure-relieving device actuated by the static pressure upstream of the device including, but not limited to pressure relief valves and rupture disks.

(Amended, Renumbered January 7, 1998)

8-18-215 **Process Unit:** A manufacturing process which is independent of other processes and is continuous when supplied with a constant feed or raw materials and has sufficient storage facilities for product.

(Amended, Renumbered January 7, 1998)

8-18-216 **Quarter:** One of the four consecutive 3-month divisions of the calendar year beginning on January 1.

(Amended, Renumbered January 7, 1998)

8-18-217 **Reinspection:** Any inspection following the minimization or repair of leaking equipment.

(Amended, Renumbered January 7, 1998)

8-18-218 **Rupture Disc:** The thin metal diaphragm held between flanges.

(Amended, Renumbered January 7, 1998)

8-18-219 **Total Organic Compounds:** The concentration of organic compounds as indicated by a hydrocarbon analyzer as specified by Section 8-18-501, including methane.

(Amended, Renumbered January 7, 1998)

8-18-220 **Turnaround:** The scheduled shutdown of a process unit for maintenance and repair work.

(Amended, Renumbered January 7, 1998)

8-18-221 **Valve:** Any device that regulates the flow of process material by means of an external actuator acting to permit or block passage of liquids or gases.

(Amended, Renumbered January 7, 1998)

8-18-222 **Weephole:** A drain hole in the discharge horn of a pressure relief device.

(Adopted January 7, 1998)

8-18-223 **Deleted January 7, 1998**
8-18-224 **Deleted January 7, 1998**

8-18-300 **STANDARDS**

8-18-301 **General:** Except for valves, pumps and compressors, connections and pressure relief devices subject to the requirements of Sections 8-18-302, 303, 304, 305 and 306, a person shall not use any equipment that leaks total organic compounds in excess of 100 ppm unless the leak has been discovered by the operator, minimized within 24 hours and repaired within 7 days.

(Amended 7/15/81; 3/17/82; 9/6/89; 3/4/92; 1/7/98)

8-18-302 **Valves:** A person shall not use any valve that leaks total organic compounds in excess of 100 ppm unless the leak has been discovered by the operator, minimized within 24 hours and repaired within 7 days; or if the leak has been discovered by the APCO, repaired within 24 hours.

(Adopted 3/4/92; Amended 1/7/98)

8-18-303 **Pumps and Compressors:** A person shall not use any pump or compressor that leaks total organic compounds in excess of 500 ppm unless the leak has been discovered by the operator, minimized within 24 hours and repaired within 7 days; or if the leak has been discovered by the APCO, repaired within 24 hours.

(Adopted 3/4/92; Amended 1/7/98)

8-18-304 **Connections:** A person shall not use any connection that leaks total organic compounds in excess of 100 ppm unless one of the following conditions are met:

304.1 The leak has been discovered by the operator, minimized within 24 hours and repaired within 7 days; or

304.2 The connection is inspected as required by Section 8-18-401.6 and:

2.1 If the leak is discovered by the operator, minimized within 24 hours and repaired within 7 days; or

2.2 If the leak has been discovered by the APCO, repaired within 24 hours.

(Adopted 3/4/92; Amended 1/7/98)

8-18-305 **Pressure Relief Devices:** A person shall not use any pressure relief device that leaks total organic compounds in excess of 500 ppm unless the leak has been discovered by the operator, minimized within 24 hours and repaired within 15 days; or if the leak has been discovered by the APCO, repaired within 7 days.

(Amended January 7, 1998)

8-18-306 **Non-repairable Equipment:** Any valve, pressure relief device, pump or compressor which cannot be repaired as required by Section 8-18-302, 303 or 305, must comply with the following conditions:

306.1 The valve, pressure relief device, pump or compressor must be repaired or replaced within 5 years or at the next scheduled turnaround, whichever date comes first.

306.2 The number awaiting repair shall not exceed the percentage expressed in the table below or 1 piece of equipment.

Equipment	Total Number of Non-repairable Equipment Allowed (%)
Valves	0.5%
Pressure Relief Devices	1%
Pumps and Compressors	1%

306.3 In lieu of compliance solely with Sections 8-18-306.2 and not with any other requirements of this rule, the valve, pressure relief device, pump or compressor must meet the following conditions:

3.1 The valve, pressure relief device, pump or compressor must be measured for mass emissions within 7 days after the leak is discovered;

3.2 The equipment's mass emission measurement must be less than the applicable standard in the table below and the corresponding total number of non-repairable equipment, including non-repairable equipment from Section 8-18-306.2, are less than the standards in the table below.

Equipment	Mass Emission Standard	Total Number of Non-repairable Equipment Allowed (%)
Valves	0.1 lb/day	1.0%
Pressure Relief Devices	0.2 lb/day	5%
Pumps and Compressors	0.2 lb/day	5%

3.3 If the valve, pressure relief device, pump or compressor's mass emission measurement is greater than 15 lb/day total organic compounds, the valve, pressure relief device, pump or compressor must be repaired within 7 days after the mass emission measurement is determined.

(Adopted3/4/92, Amended 1/7/98)

8-18-307 **Liquid Leak:** A person shall not use any equipment that leaks liquid as defined in Section 8-18-211, unless the leak has been discovered by the operator, minimized within 24 hours and repaired within 7 days.

(Adopted3/4/92; Amended 1/7/98)

8-18-308 **Alternate Compliance:** The requirements of Sections 8-18-301, 302, 303, 304, 305, 306 and 307 shall not apply to any facility which complies with an alternative emission reduction plan that satisfies all the requirements in Sections 8-18-405 and 406.

(Adopted January 7, 1998)

8-18-400 ADMINISTRATIVE REQUIREMENTS

8-18-401 **Inspection:** Any person subject to this Rule shall comply with the following inspection requirements:

401.1 All connections that have been opened during a turnaround shall be inspected for leaks within 90 days after start-up is completed following a turnaround.

401.2 Except as provided under Subsection 8-18-401.3, 404, 405, and 406 all valves, pressure relief devices, pumps or compressors subject to this Rule shall be inspected quarterly.

401.3 Inaccessible valves and pressure relief devices subject to this Rule shall be inspected at least once a year.

401.4 Any equipment subject to this Rule may be inspected at any time by the APCO.

401.5 Any equipment found to have a leak in excess of the standard in Section 8-18-300 shall be reinspected within 24 hours after leak repair or minimization.

401.6 Any connection that is inspected annually or that is part of an APCO and EPA approved connection inspection program is subject to the provisions of Subsection 8-18-304.2.

401.7 Any pressure relief device equipped with a weephole shall be inspected quarterly at the outlet of the weephole if the horn outlet is inaccessible.

401.8 Any pressure relief device that releases to the atmosphere shall be inspected within 5 working days after the release event.

(Amended 3/17/82; 9/3/86; 9/6/89; 3/4/92; 1/7/98)

8-18-402 **Identification:** Any person subject to this Rule shall comply with the following identification requirements:

402.1 All valves, pressure relief devices, pumps and compressors shall be identified with a unique permanent identification code approved by the APCO. This identification code shall be used to refer to the valve, pressure relief device, pump or compressor location. Records for each valve, pressure relief device, pump or compressor shall refer to this identification code.

402.2 All equipment with a leak in excess of the applicable leak limitation in Section 8-18-300 shall be tagged with a brightly colored weatherproof tag indicating the date the leak was detected.

(Amended 3/4/92; 1/7/98)

8-18-403 **Visual Inspection Schedule:** All pumps and compressors subject to this rule shall be visually inspected daily for leaks. If a leak is observed, the concentration of organic compounds shall be determined.

(Renumbered January 7, 1998)

8-18-404 **Alternative Inspection Schedule:** The inspection frequency for valves may change from quarterly to annually provided all of the conditions in Subsection 404.1 and 404.2 are satisfied.

404.1 The valve has been operated leak free for five consecutive quarters; and

404.2 Records are submitted and approval from the APCO is obtained.

404.3 The valve remains leak free. If a leak is discovered, the inspection frequency will revert back to quarterly.

(Adopted January 7, 1998)

8-18-405 **Alternate Emission Reduction Plan:** Any person may comply with Section 8-18-308 by developing and submitting an alternate emission reduction plan to the APCO that satisfies all of the following conditions:

405.1 The plan shall contain all information necessary to establish, document, measure progress and verify compliance with an emission reduction level set forth in this rule.

405.2 All emission reductions must be achieved solely from equipment and connections subject to this rule.

405.3 Public notice and a 60-day public comment period shall be provided.

405.4 Following the public comment period, the plan shall be submitted to and approved in writing by the EPA, Region IX prior to the APCO approval of the plan.

405.5 An alternate emission reduction plan must provide for emission reductions equal to or greater than required by the specific limits in this rule.

(Adopted 1/7/98; Amended 11/27/02)

8-18-406 **Interim Compliance:** A facility is subject to the limits contained in Sections 8-18-301, 302, 303, 304, 305, 306 and 307 until receipt of the written approvals of both the APCO and the EPA of an Alternate Emission Reduction Plan that complies with Section 8-18-405.

(Adopted1/7/98; Amended 11/27/02)

8-18-500 **MONITORING AND RECORDS**

8-18-501 **Portable Hydrocarbon Detector:** Any instrument used for the measurement of organic compounds shall be a combustible gas indicator that has been approved by the APCO and meets the specifications and performance criteria of and has been calibrated in accordance with EPA Reference Method 21 (40 CFR 60, Appendix A).

(Amended 3/17/82; 9/6/89; 3/4/92)

8-18-502 **Records:** Any person subject to the requirements of this rule shall maintain records that provide the following information:

502.1 For equipment subject to Section 8-18-402.1, the equipment identification code, equipment type and the location of the equipment.

502.2 The date of all inspections and reinspections and the corresponding leak concentrations measured as specified by Section 8-18-401.

502.3 Records shall be maintained for at least 5 years and shall be made available to the APCO for inspection at any time.

502.4 Records of all non-repairable equipment subject to the provisions of Section 8-18-306 shall be maintained, submitted to the District quarterly and contain the equipment identification code, equipment type, equipment location, leak concentration measurement and date, last process unit turnaround date, and total number of non-repairable equipment awaiting repair.

(Adopted 3/4/92; Amended 1/7/98)

8-18-600 MANUAL OF PROCEDURES

8-18-601 Analysis of Samples: Samples of organic compounds as defined in Section 8-18-113 shall be analyzed for Initial Boiling Point as prescribed in ASTM D-1078- 98 or ASTM D-86. (Adopted March 17, 1982; Amended March 4, 1992; January 7, 1998)

8-18-602 Inspection Procedure: Inspections of equipment shall be conducted as prescribed by EPA Reference Method 21 (40 CFR 60, Appendix A).

(Adopted 9/6/89; Amended 3/4/92; 1/7/98)

8-18-603 Determination of Control Efficiency: The control efficiency as specified by Section 8-18-110 shall be determined by any of the following methods: 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule.

(Renumbered and Amended January 7, 1998)

8-18-604 Determination of Mass Emissions: The mass emission determination as specified by Section 8-18-306 shall be determined using by any of the following methods: 1) EPA Protocol for Equipment Leak Emission Estimates, Chapter 4, Mass Emission Sampling, (EPA-453/R-95-017) November, 1995 or 2) a method determined to be equivalent by the EPA and approved by the APCO.

(Adopted January 7, 1998)

REGULATION 8
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REGULATION 8
ORGANIC COMPOUNDS
RULE 19
SURFACE PREPARATION AND COATING OF MISCELLANEOUS METAL PARTS AND PRODUCTS

(Adopted January 9, 1980)

8-19-100 GENERAL

8-19-101 Description: The purpose of this Rule is to limit the emission of volatile organic compounds from the surface preparation and coating of miscellaneous metal parts and products as defined in Section 8-19-204. Any operation which is determined to be exempt from the provisions of this Rule shall be subject to the provisions of Rule 4, if not already subject to another rule of Regulation 8.

(Amended 12/19/84; 10/16/02)

8-19-110 Exemption, Low Usage Coatings: The requirements of Sections 8-19-302 and 312 shall not apply to the use of any coating used in volumes less than 75.7 liters (20 gal) in any one calendar year, provided the requirements in Section 8-19-405 are satisfied. A person shall be limited to 378.5 liters (100 gal) total coating per year under this exemption.

(Amended 12/19/84; 12/18/85; 6/7/89; 2/3/93)

8-19-111 Exemption, Adhesives: The provisions of this Rule shall not apply to the application of adhesives. The application of adhesives is subject to the requirements of Regulation 8, Rule 51.

(Amended 12/19/84; 12/18/85; 2/3/93)

8-19-112 Exemption, Touch-up: The provisions of this Rule shall not apply to touch-up operations.

(Amended December 18, 1985)

8-19-113 Exemption, Specific Operations: The provisions of this Rule shall not apply to the coating of the following types of products, which may be subject to other rules of Regulation 8.

113.1 Light-duty and medium-duty motor vehicles (original equipment manufacturing) (Rule 13)
113.2 Metal containers and closures (cans, drums, lids, etc.) and metal coil (Rule 11)
113.3 Magnet wire for use in electrical machinery (Rule 26)
113.4 Metal furniture or large appliances (Rule 14)
113.5 Aircraft or aerospace vehicles (Rule 29)
113.6 Motor vehicle and mobile equipment coating operations (Rule 45)
113.7 Marine vessels and component parts (Rule 43).
113.8 Stationary structures and their appurtenances which require architectural coatings, except where baked coatings are applied (Rule 3)
113.9 Magnetic data storage disks (Rule 38)
113.10 Test panels for evaluation of coating performance (Rule 4)

(Amended 12/2/81; 12/19/84; 12/18/85; 1/7/87; 4/1/87; 6/7/89; 2/3/93; 10/16/02)

8-19-114 Exemption, Aerosol Cans: The provisions of this Rule shall not apply to coating operations employing hand-held aerosol cans. Such coating is subject to the provisions of Regulation 8, Rule 49 or to the California Air Resources Board aerosol coating product regulation found in Title 17 of the California Code of Regulations, beginning at Section 94520.

(Amended 12/2/81; 12/19/84; 12/18/85; 6/20/90; 10/16/02)

8-19-115 Deleted April 1, 1987

8-19-116 Deleted January 7, 1987

8-19-117 Exemption, Stencil Coatings: The requirements of this Rule shall not apply to coatings that are applied by template in order to add designs, letters and/or numbers to the products.

(Adopted December 2, 1985)

8-19-118 **Deleted April 1, 1987**

8-19-119 **Deleted April 1, 1987**

8-19-120 **Exemption, Powder Coatings:** The requirements of Sections 8-19-302 and 312 shall not apply to the use of any powder coating provided the emission of VOC to the atmosphere does not exceed that which is equivalent to the use of coatings which comply with those limits.

(Adopted 12/19/84; Amended 4/1/87; 6/7/89)

8-19-121 **Deleted April 1, 1987**

8-19-122 **Deleted December 18, 1985**

8-19-123 **Exemption, Solid Film Lubricant:** The provisions of this Rule shall not apply to any solid film lubricant.

(Adopted December 19, 1984)

8-19-124 **Deleted January 7, 1987**

8-19-125 **Deleted April 1, 1987**

8-19-126 **Deleted April 1, 1987**

8-19-127 **Deleted April 1, 1987**

8-19-128 **Deleted April 1, 1987**

8-19-129 **Deleted April 1, 1987**

8-19-130 **Exemption, Cathode Coatings:** The provisions of this Rule shall not apply to any electrical cathode coating.

(Adopted December 18, 1985)

8-19-131 **Exemption, Chemical Milling Maskant Coatings:** The provisions of this Rule shall not apply to any chemical milling maskant coating.

(Adopted December 18, 1985)

8-19-132 **Deleted April 1, 1987**

8-19-133 **Exemption, Spray Application Equipment:** The requirements of Section 8-19-313 shall not apply to the following operations:

133.1 The application of coatings to achieve a two-tone finish.

133.2 The application of cutback asphalt coatings.

133.3 The application of solvent-borne coatings with a solids content of at least 60 percent by volume to achieve a smooth finish on flat, front panels specified by original equipment manufacturers of computer, electronics and medical instrumentation equipment. This exemption only applies to coatings subject to the limits of Section 8-19-302.

133.4 The application of coatings to the inner surface area of pipes which require a spray gun nozzle extension.

133.5 The application of pretreatment wash primers.

133.6 The application of a textured finish coat.

(Adopted February 3, 1993)

8-19-134 **Limited Exemption, Coating Records:** The requirements of subsection 8-19-501.2 shall not apply to individual source operations using less than 75.7 liters (20 gal) of coating in any calendar year, unless otherwise specified in permit conditions pursuant to Regulation 2-1-403. A person shall maintain monthly records of coating usage under this exemption.

(Adopted February 3, 1993)

8-19-135 **Exemption, Printed Circuit Boards:** The requirements of this Rule shall not apply to coatings applied to assembled printed circuit boards. This coating operation is subject to Regulation 8, Rule 4.

(Adopted February 3, 1993)

8-19-136 **Limited Exemption, Specialty Coatings:** The requirements of Section 8-19-312 shall not apply to the following specialty coatings, provided that the VOC of those coatings does not exceed the following VOC limits and provided that the requirements of Section 8-19-407 are met.

136.1	High Performance Architectural	750 (6.2)
136.2	Pretreatment Wash Primer	780 (6.5)
136.3	Silicone Release	700 (5.8)
136.4	Extreme Performance	750 (6.2)

136.5 High Temperature 550 (4.6)

Any person seeking to use a coating subject to subsection 8-19-136.4 shall be limited to 3785 liter (1000 gal) of coating in any calendar year.

(Adopted June 15, 1994)

8-19-137 **Limited Exemption, Specific Surface Preparation and Cleaning Operations:** The surface preparation standards in Section 8-19-321 shall not apply to (i) the surface preparation of electrical and electronic components or medical devices, (ii) surfaces prepared for adhesive bonding of dissimilar substrates, (iii) stripping of cured inks, coatings and adhesives or cleaning of resin, coating, ink and adhesive mixing, molding and application equipment, or (iv) surface preparation associated with research and development operations; performance testing to determine coating, adhesive or ink performance; or testing for quality control or quality assurance purposes.

(Adopted October 16, 2002)

8-19-138 **Limited Exemption, Military Components:** The requirements of Section 8-19-321 shall not apply to the surface preparation of any military component for which a contract exists that specifies the use of an organic solvent that does not comply with the standards in Section 8-19-321, provided that contract has been entered into prior to December 1, 2005.

(Adopted October 16, 2002)

8-19-200 DEFINITIONS

8-19-201 **Air-Dried Coatings:** Any coating which is not heated above 90°C (194°F) for the purpose of curing or drying.

8-19-202 **Baked Coatings:** Any coating which is cured or dried in an oven where the oven air temperature exceeds 90°C (194°F).

8-19-203 **Deleted June 7, 1989**

8-19-204 **Miscellaneous Metal Part or Product:** Any metal part or product, except for those specified in Section 8-19-113.

8-19-205 **Deleted December 18, 1985**

8-19-206 **Deleted June 7, 1989**

8-19-207 **Touch-up:** That portion of the surface preparation and coating operation which is incidental to the main coating process but necessary to cover minor imperfections or mechanical damage incurred prior to intended use.

(Amended 12/19/84;12/18/85; 10/16/02)

8-19-208 **Transfer Efficiency:** The ratio of the amount of coating solids adhering to the object being coated to the total amount of coating solids used in the application process, expressed as a percentage.

8-19-209 **Camouflage Coating:** A coating applied on military equipment to conceal such equipment from detection.

(Amended December 2, 1981)

8-19-210 **Pretreatment Wash Primer:** Any coating which contains a minimum of 0.5% acid by weight, is necessary to provide surface etching and is applied directly to bare metal surfaces to provide corrosion resistance and adhesion.

(Adopted 12/19/84; Amended 6/7/89)

8-19-211 **Powder Coating:** Any coating applied as a dry (without solvent or other carrier), finely divided solid which, when melted and fused, adheres to the substrate as a paint film.

(Adopted December 19, 1984)

8-19-212 **Volatile Organic Compound:** Any organic compound (excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate) which would be emitted during use, application, curing or drying of a solvent or surface coating.

212.1 For purposes of calculating VOC content of a coating, any water or any of the following non-precursor organic compounds:

acetone
methyl acetate

parachlorobenzotrifluoride (PCBTF)

cyclic, branched or linear, completely methylated siloxanes (VMS)

shall not be considered to be part of the coating.

212.2 For the purposes of calculating the VOC content of a surface preparation or cleaning solvent, any water or the non-precursor organic compounds listed in subsection 8-19-212.1, above, shall be considered part of the volume of solvent but shall not be considered part of the VOC content of the solvent.

(Adopted 12/19/84; Amended 6/7/89; 2/3/93; 12/20/95; 10/16/02)

8-19-213 **Solid Film Lubricant:** A very thin coating consisting of an organic binder system containing as its chief pigment material one or more of molybdenum disulfide, graphite, polytetrafluoroethylene (PTFE) or other solids that act as a dry lubricant between meeting surfaces.

(Adopted 12/19/84; Amended 2/3/93)

8-19-214 **Adhesive:** Any coating which is applied for the purpose of bonding surfaces together.

(Adopted December 18, 1985)

8-19-215 **Motor Vehicle:** A vehicle which is self-propelled and is a device by which any person or property may be propelled, moved or drawn upon a highway, excepting a device moved by human power or used exclusively upon stationary rails or tracks.

(Adopted January 7, 1987)

8-19-216 **Solar Absorbant Coating:** Any coating which has as its primary purpose the absorption of solar radiation.

(Adopted December 18, 1985)

8-19-217 **Heat-Resistant Coating:** Any coating which during normal use must withstand temperatures of at least 204°C (400°F).

(Adopted December 18, 1985)

8-19-218 **High-Gloss Coating:** Any coating which achieves at least 85 percent reflectance on a 60° meter when tested by ASTM Method D-523-1989.

(Adopted12/18/85; Amended 6/7/89; 2/3/93)

8-19-219 **Extreme Performance Coating:** Any coating which during intended use is exposed to one or more of the following conditions:

219.1 Repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, detergents, cleaners or abrasive scouring agents

219.2 Repeated exposure to temperatures in excess of 121°C (250°F), or below 0°C (32°F) or high vacuum conditions

219.3 Chronic exposure to corrosive, caustic or acidic agents, chemicals, chemical fumes, chemical mixtures or solution.

(Adopted December 18, 1985)

8-19-220 **Cathode Coating:** Any coating which has as its primary purpose the coating of electrical cathodes.

(Adopted December 18, 1985)

8-19-221 **Chemical Milling Maskant Coating:** Any coating which is applied to a component to protect areas when performing chemical milling, anodizing, aging, bonding, plating, etching, and/or other chemical surface operations on the component.

(Adopted December 18, 1985)

8-19-222 **Non-Skid Coating:** Any coating which has as its primary purpose the creation of traction to prevent slippage.

(Adopted December 18, 1985)

8-19-223 **Silicone Release Coating:** Any coating which contains silicone resin and has as its primary function the release of food products from metal surfaces such as baking pans.

(Adopted December 18, 1985)

8-19-224 **Metallic Topcoat:** Any coating which contains more than 5 g/l (.042 lb/gal) of metal particles as identified on a technical or material safety data sheet, as applied, where such metal particles are visible in the dried film.

(Adopted 12/18/85; Amended 1/7/87; 2/3/93)

8-19-225 **High Performance Architectural Coating:** Any coating applied to architectural subsections and which is required to meet the specifications of Architectural Aluminum Manufacturer's Association's publication number AAMA 605.2-1980.

(Adopted April 1, 1987)

8-19-226 **Deleted February 3, 1993**

8-19-227 **Deleted February 3, 1993**

8-19-228 **High-Temperature Coating:** Any coating applied to a substrate which during normal use must withstand temperatures of at least 538ºC (1000ºF).

(Adopted 6/7/89; Amended 2/3/93)

8-19-229 **Electrostatic Spray:** Equipment used to apply coating by charging atomized particles that are deposited by electrostatic attraction. (Adopted February 3, 1993)

8-19-230 **High-Volume, Low-Pressure (HVLP) Spray:** Equipment used to apply coating by means of a gun which is designed to be operated and which is operated between 0.1 and 10.0 psig air atomizing pressure measured dynamically at the center of the air cap and at the air horns.

(Adopted 2/3/93; Amended 10/16/02)

8-19-231 **Detailing Gun:** Small air-spray equipment, including air brushes, that operate at no greater than 5 cfm air flow and no greater than 50 psig air pressure.

(Adopted February 3, 1993)

8-19-232 **Cutback Asphalt Coating:** A protective coating consisting of a liquified asphalt blend of asphaltic cement (semi-solid residue from the distillation of crude oil) and volatile petroleum distillates which is applied to large metal pipes to prevent corrosion.

(Adopted February 3, 1993)

8-19-233 **Smooth Finish**: An industrial class 'A' surface coating finish that is characterized by a homogeneous, uninterrupted surface film without any imperfections such as orange peel. This type of finish is not intended to have a subsequent textured finish coat applied.

(Adopted February 3, 1993)

8-19-234 **Two-Tone Finish:** A surface coating finish where one color coating is applied adjacent to a previously coated substrate of a different color, without the use of a maskant. The interface between the two coatings is a clear division of colors without any overlap.

(Adopted February 3, 1993)

8-19-235 **Approved Emission Control System:** A system for reducing emissions to the atmosphere, consisting of an abatement device and a collection system, which achieves the abatement efficiency specified in the applicable standards at all times during the operation and meets the requirements of Regulation 2, Rule 1.

(Adopted February 3, 1993)

8-19-236 **Textured Finish Coat:** Any non-smooth, patterned surface that is intentionally produced and applied as a final coat by spraying drops of coating over a previously applied base coating.

(Adopted February 3, 1993)

8-19-237 **Mold Release Coating:** A temporary protective coating with a solids content of less than 120 grams solids per liter (1 pound solids per gallon) that reduces or prevents adhesion between the mold surface and the surface being molded.

(Adopted February 3, 1993)

8-19-238 **Key System Operating Parameter**: An emission control system operating parameter, such as temperature, flow rate or pressure, that ensures operation of the abatement equipment within manufacturer specifications and compliance with the standards in Sections 8-19-302, 312, 313, 320 and/or 321.

(Adopted 6/15/94; Amended 10/16/02)

8-19-239 **Surface Preparation:** The cleaning of metal parts and products prior to coating, further treatment, sale, or intended use. Surface preparation of metal parts subject to and in compliance with Regulation 8, Rule 16: Solvent Cleaning Operations, is not subject to the surface preparation standards in this Rule.

(Adopted October 16, 2002)

8-19-240 **Electrical and Electronic Components**: Components and assemblies of components that generate, convert, transmit, or modify electrical energy. Electrical and electronic components include, but are not limited to, wires, windings, stators,

rotors, magnets, contacts, relays, printed circuit boards, printed wire assemblies, wiring boards, integrated circuits, resistors, capacitors and transistors. Cabinets in which electrical and electronic components are housed are not considered electrical and electronic components.

(Adopted October 16, 2002)

8-19-241 **Medical Device:** An instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent or other similar article, including any component or accessory that is (i) intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of diseases, or (ii) is intended to affect the structure or any function of the body, or (iii) is defined in the National Formulary or the United States Pharmacopoeia or any supplement to it.

(Adopted October 16, 2002)

8-19-300 STANDARDS

8-19-301 Deleted June 7, 1989

8-19-302 **Limits:** Except as otherwise provided by this Rule, a person shall not apply to any miscellaneous metal part or product any coating with a VOC content in excess of the following limits, expressed as grams of VOC per liter of coating applied, excluding water, unless emissions to the atmosphere are controlled to an equivalent level by air pollution abatement equipment with an abatement device efficiency of at least 85 percent that meets the requirements of Regulation 2, Rule 1.

302.1 Baked Coatings	275 grams/liter	(2.3 pounds/gallon)
302.2 Air-Dried Coating	340 grams/liter	(2.8 pounds/gallon)
302.3 Deleted January 7, 1987		

(Amended 12/2/81; 12/19/84; 12/18/85; 1/7/87; 4/1/87; 6/7/89; 2/3/93)

8-19-303 Deleted February 3, 1993

8-19-304 Deleted June 7, 1989

8-19-305 Deleted June 7, 1989

8-19-306 Deleted January 7, 1987

8-19-307 **Prohibition of Specification:** No person shall require for use or specify the application of a coating or solvent subject to this Rule if such use or application results in a violation of any of the provisions of this Rule. The prohibition of this Section shall apply to all written or oral contracts under the terms of which any coating or solvent is to be applied to any miscellaneous metal part or product at any physical location within the District.

(Adopted 12/19/84; Amended 12/18/85; 6/7/89; 10/16/02)

8-19-308 **Compliance Statement Requirement:** The manufacturer of coatings and solvents subject to this Rule shall provide on the coating container or as an accompanying data sheet, a designation of VOC (as defined in Section 8-19-212), expressed in grams per liter or pounds per gallon of coating. The designation shall include the VOC content of the coating as supplied and at the maximum recommended thinning ratio to maintain compliance with the VOC limits of this Rule.

(Adopted 12/19/84; Amended 12/18/85; 6/7/89; 2/3/93; 10/16/02)

8-19-309 Deleted April 1, 1987

8-19-310 Deleted April 1, 1987

8-19-311 Deleted June 7, 1989

8-19-312 **Specialty Coating Limitations:** Except as provided in Section 8-19-136, a person shall not apply to any miscellaneous metal part or product any specialty coating with a VOC content in excess of the following limits, expressed as grams of VOC per liter (lbs VOC per gal) of coating applied, excluding water, unless emissions to the atmosphere are controlled to an equivalent level by an air pollution abatement equipment with an abatement device efficiency of at least 85 percent that meets the requirements of Regulation 2, Rule 1.

	Baked	Air dried
312.1 Camouflage	360 (3.0)	420 (3.5)
312.2 High Gloss	360 (3.0)	420 (3.5)
312.3 Heat Resistant	360 (3.0)	420 (3.5)

312.4	High Performance Architectural	420 (3.5)	420 (3.5)
312.5	Metallic Topcoat	360 (3.0)	420 (3.5)
312.6	Deleted June 7, 1989		
312.7	Pretreatment Wash Primer	420 (3.5)	420 (3.5)
312.8	Silicone Release	420 (3.5)	420 (3.5)
312.9	Solar Absorbant	360 (3.0)	420 (3.5)
312.10	Deleted February 3, 1993		
312.11	Deleted February 3, 1993		
312.12	Extreme Performance	420 (3.5)	420 (3.5)
312.13	High Temperature	420 (3.5)	420 (3.5)

(Adopted 4/1/87; Amended 6/7/89; 2/3/93; 6/15/94)

8-19-313 **Spray Application Equipment Limitations:** Effective July 1, 1994, any person who uses spray application equipment to apply coatings to miscellaneous metal parts or products within the District shall use one or more of the following high transfer efficiency application methods, unless emissions to the atmosphere are controlled by an approved emission control system with an overall abatement efficiency of at least 85 percent:

313.1 High-Volume, Low-Pressure (HVLP) Spray, operated in accordance with the manufacturer's recommendations; or

313.2 Electrostatic spray, operated in accordance with the manufacturer's recommendations; or

313.3 Detailing gun; or

313.4 Any other coating spray application that achieves an equivalent transfer efficiency compared to the spray application methods listed in subsections 313.1 through 313.3. Prior written approval from the APCO shall be obtained for each alternative method used.

(Adopted 6/7/89; Amended 2/3/93; 10/6/93)

8-19-320 **Solvent Evaporative Loss Minimization:** Unless emissions to the atmosphere are controlled by an approved emission control system with an overall abatement efficiency of at least 85%, any person using organic solvent for surface preparation and cleanup or any person mixing, using or disposing of coatings containing organic solvent:

320.1 Shall use closed containers for the storage or disposal of cloth or paper used for solvent surface preparation and cleanup.

320.2 Shall not use organic solvent for the cleanup of spray equipment including paint lines with a VOC content in excess of 50 g/l (0.42 lbs/gal) unless either (i) the solvent is pressurized though spray equipment with the atomizing air off or dispensed from a small non-atomizing container, and collected and stored in a closed container until recycled or properly disposed of offsite, or (ii) a spray gun washer subject to and in compliance with the requirements of Regulation 8, Rule 16 is used.

320.3 Shall close containers of coating, catalyst or solvent when not in use.

(Adopted6/7/89; Amended 2/3/93; 10/16/02)

8-19-321 **Surface Preparation Standards:** Effective June 1, 2003, no person shall use a surface preparation solvent with a VOC content that exceeds 50 g/l (0.42 lbs/gal), as applied, for surface preparation of any metal part or product unless emissions to the atmosphere are controlled to an equivalent level by an approved emission control system with an overall abatement efficiency of at least 85 percent.

(Adopted October 16, 2002)

8-19-400 **ADMINISTRATIVE REQUIREMENTS**

8-19-401 **Deleted December 19, 1984**
8-19-402 **Deleted January 7, 1987**
8-19-403 **Deleted March 5, 1986**
8-19-404 **Deleted April 1, 1987**

8-19-405 **Low Usage Coating Petition:** Any person seeking to satisfy the conditions of Section 8-19-110 shall comply with the following requirements:

405.1 The user or specifier shall petition the APCO in writing that substitute complying coatings are not available.

405.2 If the APCO grants written approval, such petition will be repeated on an annual basis.

405.3 If the APCO grants written approval, such approval shall contain volume and VOC limit conditions.

405.4 Records must be maintained as in Section 8-19-501.

(Adopted12/19/84; Amended 12/18/85; 6/7/89)

8-19-406 **Deleted June 7, 1989**

8-19-407 **Specialty Coating Petition:** A person seeking a limited exemption pursuant to Section 8-19-136, shall comply with the following requirements:

407.1 A petition shall be submitted to the APCO containing the following information, as applicable: performance requirements, job order description, volume of coating, and maximum VOC level necessary.

407.2 If the APCO grants written approval, such petition will be repeated on an annual basis.

407.3 If the APCO grants written approval, such approval shall contain volume and VOC limit conditions.

407.4 Records must be maintained as in Section 8-19-501.

(Adopted 12/18/85; Amended 4/1/87; 6/7/89; 2/3/93; 6/15/94)

8-19-408 **Emission Reduction Credits:** Emission reduction credits established pursuant to Regulation 2, Rule 4 shall not take credit for any emissions reduced from coatings in excess of the standards of Section 8-19-302 or 312.

(Adopted June 15, 1994)

8-19-500 **MONITORING AND RECORDS**

8-19-501 **Records:** Any person using coatings or solvents subject to this Rule shall:

501.1 Maintain current data necessary to evaluate compliance, including the following information, as applicable:

a. coating catalyst and reducer used

b. VOC content of coating as applied

c. VOC content of surface preparation and cleanup solvents,as applied

501.2 Record the following information on a weekly basis, as applicable, unless otherwise specified in permit conditions imposed per Regulation 2-1-403:

a. coating and mix ratio of components in the coating used as applied

b. quantity of each coating applied

c. identification of specialty coating limit category

d. oven temperature

501.3 Record on a daily basis coating usage and key system operating parameters when an approved emission control system is used to comply with the requirements of Section 302, 312, 313, 320 or 321.

501.4 Record on a monthly basis the type and amount of solvent used for cleanup and surface preparation, unless more frequently specified in permit conditions imposed per Regulation 2-1-403.

501.5 Records shall be retained and available for inspection by the APCO for the previous 24-month period.

(Adopted 12/19/84; Amended 12/18/85; 1/7/87; 4/1/87; 6/7/89; 2/3/93; 10/6/93; 6/15/94; 10/16/02)

8-19-502 **Deleted February 3, 1993**

8-19-600 **MANUAL OF PROCEDURES**

8-19-601 **Analysis of Coating Samples:** Samples of volatile organic compounds as specified in Sections 8-19-302 and 312 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 21 or 22.

(Adopted 3/17/82; Amended 12/19/84; 1/7/87; 4/1/87; 6/7/89; 2/3/93)

8-19-602 **Determination of Emissions:** Emissions of volatile organic compounds as specified in Sections 8-19-302, 312, 313, 320 and/or 321 shall be measured as prescribed by any of the following methods 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. When either EPA Method 25 or 25 A is used, control device equivalency shall be determined as prescribed in 55 FR 26865 (June 29, 1990). A source shall be considered in violation if the VOC emissions measured by any of the test methods exceed the standards of this rule.

(Adopted 3/17/82; Amended 1/7/87; 4/1/87; 6/7/89; 2/3/93; 6/15/94; 10/16/02)

8-19-603 **Determination of Acid Content:** Measurement of acid content as specified in Section 8-19-210 shall be determined in accordance with ASTM Method D-1613-96.

(Adopted2/3/93; Amended 10/16/02)

8-19-604 **Analysis of Mold Release Coating Samples:** Samples of mold release coatings containing volatile organic compounds as specified in Section 8-19-302 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 31.

(Adopted February 3, 1993)

8-19-605 **Analysis of Solvent Samples:** Samples of volatile organic compounds as specified in Section 8-19-320 or 321 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 31.

(Adopted October 16, 2002)

8-19-606 **Analysis of Exempt Compounds:** Samples of PCBTF, VMS, and methyl acetate shall be analyzed by the Manual of Procedures, Volume III, Method 41, 43 and by ASTM Method D-6133-00, respectively.

(Adopted October 16, 2002)

REGULATION 8
ORGANIC COMPOUNDS
RULE 20
GRAPHIC ARTS PRINTING AND COATING OPERATIONS

INDEX

REGULATION 8
ORGANIC COMPOUNDS
RULE 20
GRAPHIC ARTS PRINTING AND COATING OPERATIONS

(Adopted April 12, 1980)

8-20-100 GENERAL

8-20-101 **Description**: The purpose of this Rule is to limit the emission of volatile organic compounds from graphic arts operations and graphic arts lines. Any operation which is determined to be exempt from the provisions of this Rule shall be subject to the provisions of Rule 4, if not already subject to another rule of Regulation 8.

(Amended December 4, 1985; October 6, 1993)

8-20-110 **Exemption, Small User**: Until September 1, 1999, the requirements of this Rule shall not apply to any facility which emits less than 182 kilograms (400 pounds) of VOC in any month from graphic arts operations, including surface preparation and cleanup solvent, provided the requirements of Section 8-20-507 are met. Effective September 1, 1999, the requirements of this Rule shall not apply to any facility which emits less than 79.4 kilograms (175 pounds) of VOC in any month from graphic arts operations, including surface preparation and cleanup solvent, provided the requirements of Section 8-20-507 are met. For the purpose of calculating exemption applicability, emissions of volatile organic compounds from the use of non-heatset lithographic ink as determined by Section 8-20-601 shall be reduced by 95 percent.

110.1 Exemption, Small User, Extreme Performance Screen Printing: Until January 1, 2003, the Extreme Performance Ink/Coating requirement of Section 8-20-307 shall not apply to any extreme performance screen printing facility which emits less than 182 kilograms (400 pounds) of VOC in any month from graphic arts operations, including surface preparation and cleanup solvent, provided the requirements of Section 8-20-406 are met.

(Amended April 19, 1989; October 6, 1993; March 3, 1999)

8-20-111 **Exemption, Laboratory and Experimental Operations**: Until September 1, 1999, the requirements of this Rule, except as provided in Section 8-20-503, shall not apply to equipment used exclusively for research, laboratory analysis or determination of product quality and commercial acceptance, provided emissions of VOC from such equipment do not exceed 136 kilograms (300 pounds) per month per facility. Effective September 1, 1999, the requirements of this Rule, except as provided in Section 8-20-503, shall not apply to equipment used exclusively for research, laboratory analysis or determination of product quality and commercial acceptance, provided emissions of VOC from such equipment do not exceed 79.4 kilograms (175 pounds) per month per facility.

(Amended April 19, 1989; October 6, 1993; March 3, 1999)

8-20-112 **Deleted April 19, 1989**

8-20-113 **Deleted April 19, 1989**

8-20-114 **Deleted April 19, 1989**

8-20-115 **Deleted April 19, 1989**

8-20-116 **Exemption, Circuitry Printing:** The requirements of this Rule shall not apply to circuitry printing. (Adopted April 19, 1989; Amended March 3, 1999)

8-20-117 **Exemption, Heat Shrinkable Tubing and Wire Insulation:** The requirements of this Rule shall not apply to the printing of heat shrinkable tubing and wire insulation.

(Adopted October 6, 1993; Amended March 3, 1999)

8-20-118 **Limited Exemption, Water Slide Decals:** The requirements of this Rule, except as provided in Section 8-20-503, shall not apply to the screen printing of water slide decals. (Adopted October 6, 1993)

8-20-119 **Exemption, Solvent Cleaners:** The requirements of this Rule shall not apply to the use of any vapor degreaser or cold cleaner that use or contain solvent for cleaning.

Such vapor degreasers or cold cleaners are subject to Regulation 8, Rule 16: Solvent Cleaning Operations. (Adopted March 3, 1999)

8-20-200 DEFINITIONS

8-20-201 **Approved Emission Control System**: A system for reducing emissions of VOC to the atmosphere, consisting of a control device and a collection system, which achieves the overall abatement efficiency specified in the applicable standards section at all times during operation of the equipment being controlled.
(Amended April 19, 1989; October 6, 1993)

8-20-202 **Flexographic Printing**: The application of words, designs or pictures by roll printing technique in which the pattern to be applied is raised above the printing roll and the image carrier is made of rubber or other elastomeric material.

8-20-203 **Fugitive Emissions**: Emissions of VOC from any portion of the printing, coating or laminating operation other than the drying oven.

8-20-204 **Graphic Arts Operation**: Any gravure, publication gravure, flexographic printing, screen printing, letterpress, or lithographic printing operation, or any coating or laminating operation manufacturing converted flexible packaging materials for packaging of food or health care products for human or animal consumption.
(Amended December 4, 1985; April 19, 1989; October 6, 1993)

8-20-205 **Gravure Printing**: An intaglio printing operation in which the ink is transferred from minute etched wells on a plate to the substrate, which is supported by an impression roller, with excess ink removed by a doctor blade.

8-20-206 **Deleted October 6, 1993**

8-20-207 **Non-Porous Substrate**: Any substrate whose surface prevents penetration by water, including but not limited to foil, polyethylene, polypropylene, cellophane, paper or paperboard coated with a non-porous surface, metalized polyester, nylon and polyethylene terephthalate (mylar). Clay-coated printing paper as defined by the American Paper Institute Classification System and paperboard coated with clay to prevent water penetration shall be considered a non-porous substrate.

8-20-208 **Deleted October 6, 1993**

8-20-209 **Porous Substrate:** A substrate whose surface does not prevent penetration by water, including but not limited to paper, paperboard, and any paper product which is coated with a porous material.

8-20-210 **Publication Gravure**: Gravure printing on paper which is subsequently formed into books, magazines, catalogues, brochures, directories, newspaper supplements or other types of printed material.

8-20-211 **Fountain Solution:** The solution applied to the image plate to maintain the hydrophilic properties of the non-image areas and to keep the non-image area free from ink. It is primarily water and contains at least one of the following materials: etchants such as mineral salts; hydrophilic gums; or VOC additives to reduce the surface tension of the solution.
(Adopted December 4, 1985; Amended March 3, 1999)

8-20-212 **Letterpress Printing:** A method where the image area is raised relative to the non-image area and the ink is transferred to the paper directly from the image surface.
(Adopted December 4, 1985)

8-20-213 **Lithographic Printing:** A plane-o-graphic method in which the image and non-image areas are on the same plane.
(Adopted December 4, 1985; Amended October 6, 1993)

8-20-214 **Screen Printing:** A process where the printing ink passes through a web or a fabric to which a refined form of stencil has been applied. The stencil openings determine the form and dimensions of the imprint. (Adopted December 4, 1985)

8-20-215 **Makeup Solvent:** That solvent which is added to printing inks to reduce viscosity.
(Adopted April 19, 1989)

8-20-216 **Volatile Organic Compounds:** Any organic compound (excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and

ammonium carbonate) which would be emitted during use, application, curing or drying of a solvent or surface coating.

216.2 Effective January 1, 1995, for the purpose of calculating the VOC content of an ink, coating, or adhesive, any water or the following non-precursor organic compounds shall not be considered to be part of the product:

acetone
parachlorobenzotrifluoride (PCBTF)
cyclic, branched or linear, completely methylated siloxanes (VMS)

216.3 For the purpose of calculating the VOC content of fountain solution and cleanup solvent, any water or the following non-precursor organic compounds shall not be considered to be part of the VOC content of the product:

acetone
parachlorobenzotrifluoride (PCBTF)
cyclic, branched or linear, completely methylated siloxanes (VMS)

(Adopted 4/19/89; Amended 10/6/93; 6/15/94; 12/20/95; 3/3/99)

8-20-217 **Graphic Arts Line:** Printing application equipment, coating equipment, laminating equipment, flash-off areas, ovens, conveyors or other equipment operating in an uninterrupted series in a graphic arts operation. (Adopted April 19, 1989)

8-20-218 **Non-Heat Set Ink**: An ink which dries by oxidation and absorption into the substrate without the use of heat from dryers or ovens. (Adopted April 19, 1989)

8-20-219 **Extreme Performance Ink/Coating:** For the purposes of this Rule, an ink or coating used in screen printing on a non-porous substrate that is designed to resist or withstand any of the following: more than two years of outdoor exposure; exposure to industrial-grade chemicals, solvents, acids, or detergents, oil products, cosmetics, temperatures exceeding 76°C (170°F), vacuum forming, embossing or molding. (Adopted October 6, 1993)

8-20-220 **Heat Shrinkable Tubing and Wire Insulation:** Thermoplastic tubing, including but not limited to polyethylene, Kynar and mylar tubing that, after printing, is exposed to temperatures exceeding 100°C (212°F) or other environmental extremes, including but not limited to, repetitive rubbing or contact with hot fluids. (Adopted October 6, 1993; Amended March 3, 1999)

8-20-221 **Metallic Ink:** An ink that contains greater than 50 grams of metal per liter (0.4 lb/gal) of ink. (Adopted October 6, 1993)

8-20-222 **Sign Ink/Coating:** An ink or coating used in screen printing indoor and outdoor signs (excluding structural components) and murals, including lettering enamels, poster colors, copy blockers, and bulletin enamels. (Adopted October 6, 1993)

8-20-223 **Solvent:** Organic compounds which are used as diluents, thinners, dissolvers, viscosity reducers, cleaning agents or for other similar uses. (Adopted October 6, 1993)

8-20-224 **Water Slide Decal:** A decal which is screen printed onto treated paper stock and is removable from the stock by the dissolution of an underlying, water-soluble adhesive or a similar carrier. (Adopted October 6, 1993)

8-20-225 **Web Splicing Adhesive:** An adhesive used to join two continuous rolls of substrate. (Adopted October 6, 1993)

8-20-226 **Key System Operating Parameter:** An emission control system operating parameter, such as temperature, flow rate or pressure, that ensures operation of the abatement equipment within manufacturer specifications and compliance with the standards in Section 8-20-301.2, and 308. (Adopted June 15, 1994)

8-20-227 **Circuitry Printing:** Printing on circuit boards and other electronic circuitry, including membrane switches. (Adopted March 3, 1999)

8-20-228 **Lithographic, Blanket and Roller Washes:** Cleaning products which are used to wash the blankets, the rollers, and the exterior surfaces of the printing press to remove excess printing inks, oils, and paper pieces. (Adopted March 3, 1999)

8-20-229 **Lithographic, Other Cleaners:** Cleaning products which are used to clean the other components of the lithographic presses other than blankets, rollers, and exterior surfaces, such as metering rollers and printing plates. (Adopted March 3, 1999)

8-20-230 **Ink Removal Products:** Cleaning products used for the final cleaning of application equipment prior to color change or storage of the application equipment. (Adopted March 3, 1999)

8-20-231 **VOC Composite Partial Pressure:** Sum of the partial pressures of the compounds defined as VOCs. (Adopted March 3, 1999)

8-20-232 **Specialty Flexographic Printing:** Flexographic printing on polyethylene, polypropylene, polyester and foil substrates for food packaging and health care products and specialty products on nylon substrates. (Adopted March 3, 1999)

8-20-300 **STANDARDS**

8-20-301 **Publication Gravure Requirements**: A person shall not operate a publication gravure process unless one or more of the following conditions is satisfied:

301.1 The process uses ink and coating that contains less than 300 grams VOC per liter of product, less water, or

301.2 Emissions of VOC from the printing and drying operation are controlled by an emission control system that meets the requirements of Regulation 2, Rule 1, and which has an overall collection and control efficiency of at least 85 percent on a mass basis. (Amended April 19, 1989; October 6, 1993)

8-20-302 **Flexographic, Gravure, Letterpress, and Lithographic Requirements:** Except as provided in Section 8-20-308, a person shall not operate a flexographic, gravure, letterpress, lithographic, related printing or coating operation unless the following product limits, expressed in grams VOC per liter of product as applied (pounds per gallon), less water, or percent VOC by volume are met:

Product Limits
grams VOC per liter of product as applied, less water (lbs/gal)

Ink	300 (2.5)
Coating	300 (2.5)
Adhesive	150 (1.25)
Web Splicing Adhesive	300 (2.5)

Product Limit
percent VOC by volume

Fountain Solution	8

(Amended October 6, 1993; June 15, 1994; March 3, 1999)

8-20-303 **Deleted April 19, 1989**

8-20-304 **Alternate Emission Control Plan**: The requirements of Sections 8-20-301 and 8-20-302 shall not apply to any graphic arts operation or group of such operations which comply with an alternative emission control plan that satisfies all the following requirements:

304.1 For plans submitted prior to May 26, 1988, emissions of VOC, on a daily weighted average, shall be no greater than that amount which would result if the affected graphic arts line or lines complied with all applicable requirements of Sections 8-20-301, and 302. Averaging shall be performed using pounds of VOC emitted per gallon of solids applied. The VOC content of the ink, coating, adhesive or fountain solution is as applied including any solvent added before or during application.

304.2 The plan shall include methods acceptable for demonstrating compliance with the plan on a daily basis. The information shall be available for inspection by the APCO for each production day at the time of inspection. Such demonstration shall include the following information:

2.1 List of products included in the plan

2.2 Type of inks, coatings or adhesives which will be applied on each product

2.3 Amount of ink, coatings or adhesives applied on each product

2.4 Solids content for each ink, coating or adhesive

2.5 VOC content per gallon or liter of solids, as applied, for each ink, coating or adhesive

2.6 Detailed description of how compliance with Section 8-20-304.1 or Section 8-20-304.7.2, where applicable, shall be achieved

304.3 The person submitting the plan shall maintain such records and submit such information on usage and composition, laboratory analysis, source tests or other information as required by the APCO to determine compliance with the plan.

304.4 The plan shall contain credit only for reductions achieved on sources subject to the applicable sections of this Rule. Credit shall not be granted for periods of non-operation, for reductions in surface preparation or cleanup solvent, for coatings exempt from the standards in Section 8-20-301 and 302, nor for emission reductions required by other regulations of this District.

304.5 If any District regulation is adopted or amended after approval of the plan which requires emissions reductions that are included in the plan, a new plan shall be submitted which does not include credit for those reductions.

304.6 The plan shall be submitted to the APCO for review and approval on an annual basis. Submission of the plan shall be within 60 days prior to annual permit renewal. Approval of the plan shall include a 30-day public comment period.

304.7 For alternate emission control plans submitted on or after May 26, 1988, the following additional requirements shall be satisfied:

7.1 Emissions of VOC on a daily basis shall not exceed the maximum daily emission limit as specified in subsection 8-20-304.7.2.

7.2 For the purpose of determining the maximum daily emission limit, the plan shall include a 20 percent net reduction beyond a baseline as calculated in subsection 8-20-304.7.3.

7.3 Baseline emissions shall be calculated as follows:

Baseline emissions = E x P x U, where

E = the lower of the actual or allowable pounds of VOC at the time of submission of the plan per pound of solids applied.

P = the arithmetic average of the lower of the actual or allowable hours of operation per day for the prior two years or two other years if it can be shown to the satisfaction of the APCO that the prior two years are not representative.

U = the lower of the actual or allowable pounds of solids per unit of production times units of production per day.

Allowable emissions shall be those which would meet the limits specified in Section 8-20-301 and 302, expressed as a solids applied basis.

7.4 The plan submitted pursuant to subsection 8-20-304.2 shall additionally include units of production per hour or per production run and hours of operation or production runs per day to demonstrate compliance with the plan on a daily basis.

7.5 Emissions reductions achieved as a result of compliance with subsection 304.7.2 shall not be deposited into an emissions trading bank. The plan may not take credit for emissions banked as the result of a shutdown.

(Amended October 6, 1993)

7.6 Emissions reductions from an air pollution abatement device may not be used to generate credit toward an alternate emissions control plan where the installation of the device was necessary to comply with Sections 8-20-301 or 302.

7.7 Each renewal of a plan shall maintain the maximum daily emission limit established at the time of initial approval of the plan as specified in subsection 8-20-304.7.1. A recalculation of baseline emissions and a 20 percent net reduction as specified in subsections 8-20-304.7.2 and

304.7.3 shall not be required for each plan renewal. Any modification of the provisions of the plan shall constitute a new plan.

7.8 The requirements of subsections 8-20-304.7.1, 304.7.2 and 304.7.3 shall not apply to any plan submitted where the provisions of the plan are limited to coatings applied at a single source subject to the same emission limitation during a single production run. Allowable emissions shall be those specified in subsection 8-20-304.1.

7.9 The provisions of subsection 8-20-304.7 shall be submitted to the Environmental Protection Agency (EPA) as a source-specific revision to the State Implementation Plan (SIP). Sources which obtain an approved alternate emission control plan pursuant to the provisions of subsection 8-20-304.7 remain subject to federal enforcement of existing SIP limits pending federal approval of the plan as a source-specific SIP revision.

304.8 Failure to comply with any provision of an approved plan shall constitute a violation of this Rule. (Amended September 20, 1989; October 6, 1993)

8-20-305 Deleted April 19, 1989

8-20-306 Compliance Statement Requirement: The manufacturer of all inks, coatings, adhesives, and fountain solutions which are sold for use in graphic arts operation within the District shall include a designation of VOC of product, less water, as supplied (as defined in Section 8-20-216) expressed in grams per liter or pounds per gallon, either by calculation or analysis, on data sheets.

(Adopted April 19, 1989; Amended October 6, 1993)

8-20-307 Screen Printing Requirements: Except as provided in Section 8-20-308, a person shall not operate a screen printing operation unless the following product limits, expressed in grams VOC per liter (pounds per gallon) as applied, less water, are met:

Product Limit
grams per liter VOC as applied, less water (lbs/gal)

Ink	400 (3.3)
Coating	400 (3.3)
Adhesive	150 (1.25)
Extreme Performance Ink/Coating	400 (3.3)
Metallic Ink	400 (3.3)
Sign Ink/Coating	400 (3.3)

(Adopted October 6, 1993; Amended March 3, 1999)

8-20-308 Approved Emission Control System Requirements: The limits of Section 8-20-302, 307, or 309 shall not apply when emissions of VOC to the atmosphere from the printing, coating or laminating, drying and cleanup operations are controlled by an emission control system that meets the requirements of Regulation 2, Rule 1, and has a collection and control efficiency of at least 75 percent overall on a mass basis.

(Adopted October 6, 1993; Amended March 3, 1999)

8-20-309 **Cleaning Product Requirements:** Effective January 1, 2000, except as provided in Section 8-20-308, a person shall not use cleaning products containing VOC's for the cleanup of equipment used in graphic arts printing and coating operations, unless the following product limits are met:

Product Limit

	VOC g/l (lb/gal), including water		VOC Composite Partial Pressure Hg @ 20°C (68°F)
Lithographic, Blanket and Roller Washes	300 (2.5)	OR	10
Lithographic, Other Cleaners	300 (2.5)	OR	25
Screen Printing, Ink Removal Products	300 (2.5)	OR	10
Gravure Printing	800 (6.7)	OR	25
Ultraviolet Inks, Ink Removal Products	800 (6.7)	AND	33
Flexographic Printing	810 (6.8)	AND	21
Specialty Flexographic Printing	880 (7.4)	AND	25

(Adopted March 3, 1999)

8-20-320 **Solvent Evaporative Loss Minimization:** The requirements of this Section shall apply to any person using solvent for surface preparation and cleanup and to any person using, mixing, storing, or disposing of ink, coating or adhesive :

320.1 A person shall not use open containers for the storage or disposal of cloth or paper impregnated with organic compounds that is used for surface preparation, cleanup or ink, coating or adhesive removal.

320.2 A person shall not store spent or fresh organic compounds to be used for surface preparation, cleanup or ink, coating, or adhesive removal in open containers.

320.3 A person shall not leave containers or ink, coating, adhesive or fountain solution open when not in use.

(Adopted April 19, 1989; Amended and Renumbered October 6, 1993)

8-20-400 **ADMINISTRATIVE REQUIREMENTS**

8-20-401 **Deleted April 19, 1989**
8-20-402 **Deleted April 19, 1989**
8-20-403 **Deleted April 19, 1989**
8-20-404 **Deleted April 19, 1989**
8-20-405 **Deleted April 19, 1989**

8-20-406 **Compliance Schedule, Loss of Exemption:** Any person who becomes subject to the requirements of Sections 301, 302, or 307 through loss of exemption in Section 110 shall comply with the following increment of progress:

406.1 By January 1, 1995, be in full compliance with the requirements of this Rule.

8-20-407 **Small User, Extreme Performance Screen Printing Petition:** Any person seeking to use an Extreme Performance Ink/Coating which does not comply with the requirements of Section 8-20-307 shall satisfy the conditions of Section 8-20-110.1 and shall comply with the following requirements:

406.1 The user or specifier shall petition the APCO (attn: Enforcement Division) in writing that substitute complying coatings are not available.

406.2 The petition to the APCO shall include the performance requirements, volume of coating, and VOC level, which is attainable. A facility may submit more than one petition, as long as the conditions of Section 8-20-110.1 are satisfied.

406.3 If the APCO grants written approval, such petition will be repeated on an annual basis.

406.4 If the APCO grants written approval, such approval shall contain conditions consistent with the information provided in the petition to monitor usage and insure compliance with Section 8-20-110.1.

406.5 Records shall be maintained as in Section 8-20-503.

(Adopted March 3, 1999)

8-20-500 MONITORING AND RECORDS

8-20-501 Deleted April 19, 1989

8-20-502 Deleted April 19, 1989

8-20-503 Records: Any person complying with the requirements of Sections 8-20-111, 118, 301.1, 302, 307 or 309 shall:

503.1 Maintain a current list of inks, coatings, adhesives, fountain solutions and makeup and cleaning solvents in use which states the VOC content of each.

503.2 Record on a monthly basis the type and amount of all ink, using one of the following methods:

2.1 Group the quantity of all inks used and identify the maximum VOC content and use the minimum density of 1.01 kg/l (8.44lb/gal).

2.2 Report process inks and pantone colors separately and use the specific VOC content and density value for each process ink and the highest volatile organic compound and 1.01 kg/l (8.44 lbs/gal) for pantone inks; or

2.3 Report process inks and pantone colors separately using the maximum VOC content and minimum density for both process and pantone inks or use the density of 1.01 kg/l (8.44 lbs/gal) for pantone inks.

2.4 Itemize each ink and pantone color and use the specific VOC content and density value for each.

503.3 Record on a monthly basis the type and amount of each coating, adhesive, fountain solution and makeup, surface preparation, and cleanup solvent used.

503.4 Retain and have such records available for inspection by the APCO for the previous 24-month period.

(Adopted 4/19/89; Amended 10/6/93; 6/15/94; 3/3/99)

8-20-504 Deleted October 6, 1993

8-20-505 Emission Control System Monitoring: Effective September 1, 1989, any person who uses an emission control system which is subject to the provisions of Sections 8-20-301.2, 301.3, 304, and 308 shall install a readily visible temperature gauge which monitors the operating temperature of the emission control system at all times during operation.

(Adopted April 19, 1989; Amended September 20, 1989; October 6, 1993)

8-20-506 Emission Control System, Recordkeeping Requirements: Any person subject to Sections 8-20-301.2 and 308 shall:

506.1 Maintain a current list of inks, coatings, adhesives, fountain solutions and makeup solvent in use which states the VOC content of each.

506.2 Record on a daily basis the type and amount of all ink, coating, adhesive, fountain solution and makeup, surface preparation and cleanup solvent used.

506.3 Record key system operating parameters, as defined in Section 8-20-226, on a daily basis.

506.4 Retain and have such records available for inspection by the APCO for the previous 24-month period.

(Adopted October 6, 1993; Amended June 15, 1994)

8-20-507 Burden of Proof: Any person claiming the small user exemption per Section 8-20-110 must have information available, such as purchase orders or hazardous waste manifests, that would allow the APCO to verify facility usage.

(Adopted October 6, 1993)

8-20-600 MANUAL OF PROCEDURES

8-20-601 **Analysis of Samples**: Samples of products specified in Sections 8-20-301, 302, and 307 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Methods 21 or 22, or EPA Methods 24 and 24A to determine VOC content. Samples of fountain solutions and cleaning materials as specified in Section 8-20-302 and 309, shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 31.

(Amended October 6, 1993; Amended March 3, 1999)

8-20-602 **Determination of Emissions**: Emissions of volatile organic compounds as specified in Sections 8-20-110, 111, 301, 308, and subsection 8-20-304.3 shall be measured as prescribed by any of the following methods: 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. When either EPA Method 25 or 25A is used, control device equivalency shall be determined as prescribed in 55 FR 26865 (June 29, 1990). A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule. When determining emissions of VOC for lithographic printing facilities, the following substrate retention factors of VOC for inks will be applied: 20 percent retention of the VOC content for heatset inks and 95 percent retention of the VOC content for non-heatset inks, based on the VOC content as determined by Section 8-20-601. For the purpose of determining abatement device efficiency, any acetone, PCBTF or VMS shall be included as volatile organic compounds. A source shall be considered in violation if the VOC emissions measured by any of the reference test method exceed the standards of this rule.

(Amended April 19, 1989; Sept. 20, 1989; Oct. 6, 1993; June 15, 1994)

8-20-603 **Deleted October 6, 1993**

8-20-604 **Determination of VOC Composite Partial Pressure**: Emissions of VOC Composite Partial Pressure shall be measured as prescribed by BAAQMD Manual of Procedures, Volume III, Method 46. (Adopted March 3, 1999)

REGULATION 8

ORGANIC COMPOUNDS

RULE 21

RUBBER TIRE MANUFACTURING OPERATIONS

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REGULATION 8

ORGANIC COMPOUNDS

RULE 21

RUBBER TIRE MANUFACTURING OPERATIONS

(Adopted March 5, 1980)

8-21-100 GENERAL

8-21-101 Description: The purpose of this Rule is to limit emissions of volatile organic compounds (VOC) from pneumatic rubber tire manufacturing operations.

8-21-110 Exemption, Retread Operations: The requirements of this Rule shall not apply to operations applying new tread to used tires.

8-21-200 DEFINITIONS

8-21-201 Approved Emission Collection System: A system, approved by the APCO, for collecting VOC emissions and transporting them to a control device and which satisfies at least one of the following conditions:

201.1 The system collects at least 85 percent of the VOC emissions generated by the operation being controlled, or

201.2 The system achieves maximum reasonable collection consistent with good engineering practice and guidelines published by the American Federation of Industrial Hygienists and the National Institute of Occupational Safety and Health.

8-21-202 Bead Dipping: Dipping of an assembled tire bead into a solvent based cement.

8-21-203 Green Tire Coating: Coating of green tires with release compounds to help remove air during tire molding and prevent the tire from sticking to the mold after curing.

8-21-204 Green Tires: Assembled tires before molding and curing have occurred.

8-21-205 Pneumatic Rubber Tire Manufacturing: Production of pneumatic rubber tires for passenger cars, light trucks or medium trucks, or other pneumatic rubber tires manufactured on an assembly line using automated equipment.

8-21-206 Tread End Cementing: Application of a solvent based cement to the tire tread ends.

8-21-207 Undertread Cementing: Application of a solvent based cement to the underside of a tire tread.

8-21-208 Water Based Coating: Release compounds which contain less than 3 percent volatile organic compounds.

8-21-300 STANDARDS

8-21-301 Cementing and Bead Dipping: Effective April 1, 1982, a person shall not operate any under-tread cementing, tread and cementing or bead dipping operation unless the following requirements have been satisfied:

301.1 Install and operate an approved emission collection system, as defined in this Rule.

301.2 Install and operate a control device which reduces emissions from the collection system by at least 95 percent on a mass basis.

8-21-302 **Green Tire Coating:** Effective April 1, 1982, a person shall use only water base coatings in green tire coating operations unless the following requirements are satisfied:

302.1 Install and operate an emission collection system which collects and transports to the control device at least 90 percent (on a mass basis) of the VOC emitted by the green tire coating.

302.2 Install and operate a control device which reduces emissions from the collection system by at least 95 percent on a mass basis.

8-21-303 **Compensating Reductions:** The requirements of Sections 8-21-301 through 302 shall not apply to any pneumatic rubber tire manufacturing operations which comply with an alternative emission control plan which has been approved by the APCO and which satisfied all the following requirements.

303.1 Emissions of VOC, on a daily wighted average, be no greater than the amount which would result if the affected operations complied with all applicable requirements of Sections 8-21-301 through 302.

303.2 The plan shall be submitted to the APCO for review and approval on an annual basis.

303.3 The plan shall include methods acceptable to the APCO for demonstrating compliance with the plan on a daily basis. Such demonstration shall include the following:

3.1 List of materials which will be used on each production line.

3.2 Type of coatings or cements which will be applied

3.3 Amount of those coatings or cements which will be applied.

3.4 VOC content or equivalent emission for each coating or cement.

3.5 Detailed description of compensating reductions to be achieved for each non-complying operation.

303.4 The information required in subsection 303.3 shall be available for inspection by the APCO on each production day.

303.5 The plan shall contain credit only for reductions achieved on coating or cementing operations subject to this Rule.

303.6 Failure to comply with any provision of an approved plan shall constitute a violation of this Rule.

303.7 The person submitting the plan shall maintain such records and submit such information on usage and composition, laboratory analysis, source tests or other information as required by the APCO to determine compliance with the plan.

303.8 The plan shall not include credit for emission reductions required by other sections of this regulation or other regulations of this District.

303.9 If any District regulation is adopted or mended after approval of the plan, which requires emission reductions which are included in the plan, a new plan shall be submitted which does to included credit for those reductions.

8-21-304 **Container Requirements:** Containers for organic solvents or for cements containing organic solvents shall be covered at all times except when cleaning or adding or removing material, and any leaks in such containers shall be repaired immediately.

8-21-400 **ADMINISTRATIVE REQUIREMENTS**

8-21-401 **Compliance Schedule:** Any person who is subject to the requirements of this Rule shall comply with the following increments of progress:

401.1 By April 1, 1981: Submit to the APCO a plan describing the methods to be used to comply with the applicable requirements.

401.2 By November 1, 1981: Submit a completed application for any Authority to Construct necessary to comply with the applicable requirements.

401.3 By April 1, 1982: Be in full compliance with all applicable requirements.

8-21-600 MANUAL OF PROCEDURES

8-21-601 Determination of Emissions: Emissions of volatile organic compounds as specified in Section 8-21-301, 302 and subsections 8-21-201.1 and 303.7 shall be measured as prescribed in the Manual of procedures, Volume IV, ST-7.

(Adopted March 17, 1982)

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RULE 22
VALVES AND FLANGES AT CHEMICAL PLANTS

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REGULATION 8
ORGANIC COMPOUNDS
RULE 22
VALVES AND FLANGES AT CHEMICAL PLANTS
(Adopted March 5, 1980)

8-22-100 GENERAL

8-22-101 **Description:** The purpose of this Rule is to limit emissions of precursor organic compounds from valves and flanges at chemical plants.
(Amended March 17, 1982; July 20, 1983)

8-22-110 **Deleted September 6, 1989**

8-22-111 **Deleted September 6, 1989**

8-22-112 **Exemption, Low Vapor Pressure:** The provisions of this Rule shall not apply to valves or flanges which handle only organic liquids with a vapor pressure less than 2.6 mmHg (0.05 psia) at 20°C (68°F) or exhibit a 10 percent evaporation point greater than 150°C (302°F) when using ASTM D-86.
(Amended September 6, 1989)

8-22-113 **Exemption, Natural Gas:** The provisions of this Rule shall not apply to valves or flanges which handle only commercial natural gas. (Amended September 6, 1989)

8-22-114 **Exemption, Research and Development Facilities:** The provisions of this Rule shall not apply to research or development facilities which produce only non-commercial products for research and development purposes.
(Amended June 1, 1994)

8-22-115 **Exemption, Chemical Plants With 100 or More Valves:** Effective January 1, 1993, the provisions of this Rule shall not apply to valves or flanges in chemical plants having 100 or more valves, which are subject to the provisions of Regulation 8, Rule 18: Valves and Connectors at Petroleum Refineries, Chemical Plants, Bulk Plants and Bulk Terminals. (Adopted March 4, 1992)

8-22-200 DEFINITIONS

8-22-201 **Background:** The ambient concentration of organic compounds determined at least 3 meters (10 feet) upwind from the valve or flange to be inspected and not influenced by any specific emission point.
(Amended March 17, 1982; September 6, 1989)

8-22-202 **Essential Valve or Flange:** A valve or flange which cannot be taken out of service without shutting down the process unit which it serves.

8-22-203 **Flange:** A projecting rim on a pipe or piping component used to attach it to another piping detail.

8-22-204 **Flange Leak Minimization:** Tightening, adjusting or addition of gasket material to a flange, using best modern practices, for the purpose of stopping or reducing leakage to the atmosphere.

8-22-205 **Flange Leak Repair:** Tightening, adjusting or replacing, adding gasket material to a flange which reduces leakage to the atmosphere below the limit of Section 8-22-301.

8-22-206 **Process Unit:** A manufacturing process which is independent of other processes and is continuous when supplied with a constant feed of raw materials and sufficient storage facilities for the final project. (Renumbered March 17, 1982)

8-22-207 **Chemical Plants:** Any facility engaged in producing organic or inorganic and/or manufacturing products by chemical processes. Any facility or operation that has 28 as the first two digits in their Standard Industrial Classification Code as determined from the Standard Industrial Classification Manual published in 1972 by the Executive Office of the President, Office of Management and Budget. Chemical plants may include, but are not limited to the manufacture of: industrial inorganic and organic chemicals; plastic and synthetic resins, synthetic rubber, synthetic and other man made fibers; drugs; soap, detergents and cleaning preparations, perfumes, cosmetics and other toilet preparations; paints, varnishes, lacquers, enamels and allied products; agricultural chemicals; safflower and sunflower oil extracts; re-refining.

(Renumbered March 17, 1982; Amended July 20, 1983; March 4, 1992)

8-22-208 **Valve:** Any device that regulates the flow of fluids in a piping system by means of an external actuator acting to permit or block passage of liquids or gases.

(Renumbered March 17, 1982)

8-22-209 **Valve Leak Minimization:** The tightening, adjustment, or addition of packing material which surrounds the valve stem, or the replacement of the valve for the purpose of stopping or reducing leakage to the atmosphere, using best modern practices. (Renumbered March 17, 1982)

8-22-210 **Valve Leak Repair:** The tightening, adjustment, or addition of packing material which surrounds the valve stem, or the replacement of the valve, which reduces the leakage to the atmosphere below the limit of Section 8-22-301.

(Renumbered March 17, 1982)

8-22-211 **Inaccessible Valves and Flanges:** Valves or flanges that are not in an accessible location as defined by Title 8, Section 3207, General Industrial Safety Orders of CAL OSHA 1986. (Adopted September 6, 1989)

8-22-212 **Small Chemical Plant:** Effective January 1, 1993, any chemical plant that has 100 or less valves. (Adopted March 4, 1992)

8-22-300 **STANDARDS**

8-22-301 **Valves and Flanges:** A person shall not use any valve or flange handling precursor organic compounds in a chemical plant if the concentration of organic compounds, measured 1 cm or less from any leak in such valve or flange, exceed 10,000 ppm (expressed as methane) above background, unless the following requirements are satisfied:

301.1 If the valve or flange is not essential, the leak shall be repaired within 15 days.

301.2 If the valve or flange is essential, the leak shall be minimized within 15 days.

301.3 If a valve or flange leak which has been minimized as required by subsection 301.2 still exceeds the limitations of Section 8-22-301, that valve or flange shall be repaired at the next scheduled turnaround of the process unit. Effective July 1, 1980 any such valve or flange shall not be operated longer than six months before repairs are conducted.

301.4 Any valve or flange subject to Section 8-22-301, where the organic compound concentration exceeds 75,000 ppm (expressed as methane) above background, measured 1 cm or less from a leak in any such valve or flange, shall be repaired within 15 days.

(Amended March 17, 1982; July 20, 1983; September 6, 1989)

8-22-400 **ADMINISTRATIVE REQUIREMENTS**

8-22-401 **Identification:** Any valve or flange with a leak in excess of the limitations of Section 8-22-301, which has been detected by the operator and is awaiting repair shall be identified in a manner which is readily observable by a District inspector. (Amended September 6, 1989)

8-22-402 **Inspection Plan:** Any person subject to this Rule shall comply with the following inspection requirements:

402.1 All annually inspected valves shall be inspected at least once prior to January 1, 1991. All quarterly inspected valves shall be inspected at least once prior to April 1, 1990.

402.2 Any valve which exceeds the limitations of Section 8-22-301 shall be marked with a tag and shall be reinspected within 3 months after being repaired.

402.3 Any inaccessible valve subject to this Rule shall be inspected at least once a year by the person subject to this Rule.

402.4 Any accessible valve subject to this Rule shall be inspected at least quarterly by the person subject to this Rule.

402.5 Any valve subject to this Rule may be inspected at any time by the APCO.

(Amended March 17, 1982; July 20, 1983; September 6, 1989)

8-22-403 **Deleted June 1, 1994**

8-22-500 **MONITORING AND RECORDS**

8-22-501 **Portable Hydrocarbon Detector:** Any instrument used for the measurement of precursor organic compounds shall be a combustible gas indicator approved by the APCO or other type of instrument approved by the APCO in accordance with EPA Reference Method 21. (Amended March 17, 1982; September 6, 1989)

8-22-502 **Records:** Any person subject to the requirements of this Rule shall maintain records that provide the following information:

502.1 The valve identification code, valve type and the location of the valve.

502.2 The date of all inspection and reinspection and the corresponding leak concentration measured as specified by Section 8-22-401.

502.3 Records shall be maintained for at least 5 years and shall be made available to the APCO for inspection at any time.

502.4 Monthly records of all non-repairable valves subject to the provisions of Section 8-22-301.3 shall be maintained and contain the valve identification code, valve type, valve location, leak concentration monthly measurement and date, last unit turnaround date, and total number of non-repairable valves awaiting repair. (Adopted June 1, 1994)

8-22-600 **MANUAL OF PROCEDURES**

8-22-601 **Analysis of Samples:** Samples of organic compounds as defined in this Rule shall be analyzed for Reid vapor pressure as prescribed in the Manual of Procedures, Volume 111, Method 13. (Adopted March 17, 1982)

8-22-602 **Inspection Procedure:** Inspection of valves and flanges shall be conducted as prescribed by EPA Reference Method 21. (Adopted September 6, 1989)

REGULATION 8
ORGANIC COMPOUNDS
RULE 23
COATING OF FLAT WOOD PANELING AND WOOD FLAT STOCK

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REGULATION 8
ORGANIC COMPOUNDS
RULE 23
COATING OF FLAT WOOD PANELING AND WOOD FLAT STOCK

(Adopted April 2, 1980)

8-23-100 GENERAL

8-23-101 Description: The purpose of this Rule is to limit the emission of volatile organic compounds (VOC) from the application of coatings and adhesives to flatwood panels and wood flat stock including but not limited to the following:

101.1 Printed interior panels made of hardwood plywood and thin particleboard
101.2 Natural finish hardwood plywood
101.3 Hardwood paneling
101.4 Baseboard
101.5 Wood flat stock
101.6 Veneers, doors, door skins, and wood flat product skins
101.7 Tileboard and wallboard
101.8 Exterior siding

Any coating which is determined to be exempt from the provisions of this Rule shall be subject to the provisions of Rule 4, if not already subject to another Rule of Regulation 8. (Amended March 20, 1985; June 21, 1989)

8-23-102 Deleted October 6, 1993

8-23-110 Exemption, Furniture and Cabinet Components: This Rule shall not apply to the surface coating of flat wood stock intended to be used as a furniture or cabinet component. Such coating is subject to Regulation 8, Rule 32.

(Amended June 21, 1989)

8-23-111 Exemption, Architectural Coatings: The provisions of this Rule shall not apply to the application of coatings to stationary structures and their appurtenances. Such coating is subject to Regulation 8, Rule 3, Architectural Coatings.

(Adopted June 21, 1989)

8-23-200 DEFINITIONS

8-23-201 Deleted June 21, 1989

8-23-202 Deleted June 21, 1989

8-23-203 Hardboard: A panel manufactured primarily from inter-felted ligno-cellulosic fibers which are consolidated under heat and pressure in a hot press.

8-23-204 Hardwood Plywood: Plywood whose surface layer is a veneer of hardwood.

8-23-205 Natural Finish Hardwood Plywood Panels: Panels whose original grain pattern is enhanced by essentially transparent finishes frequently supplemented by fillers and toners.

8-23-206 Printed Interior Panels: Panels whose grain or natural surface is obscured by fillers and basecoats upon which a simulated grain or decorative pattern is printed.

8-23-207 Thin Particleboard: A manufactured board 1/4 inch or less in thickness made of individual wood particles which have been coated with a binder and formed into flat sheets by pressure.

8-23-208 Tileboard: Paneling that has a colored waterproof surface coating.

8-23-209 Adhesive: Any substance that is applied for the primary purpose of bonding surfaces together. (Adopted March 20,1985; Amended June 21, 1989)

8-23-210 Deleted June 21, 1989

8-23-211 **Coating:** Any coating applied on any wood flat stock including but not limited to water repellent preservative, semitransparent stains, opaque stains, filler, or clear top coat. (Adopted March 20, 1985)

8-23-212 **Deleted June 21, 1989**

8-23-213 **Ink:** Any fluid or viscous composition used in printing, impressing or transferring an image onto a panel. (Adopted March 20, 1985)

8-23-214 **Deleted June 21, 1989**

8-23-215 **Deleted June 21, 1989**

8-23-216 **Deleted June 21, 1989**

8-23-217 **Deleted June 21, 1989**

8-23-218 **Panel:** A flat piece of wood or wood product, usually rectangular and used inside homes and mobile homes for wall decorations. (Adopted March 20, 1985)

8-23-219 **Deleted June 21, 1989**

8-23-220 **Deleted June 21, 1989**

8-23-221 **Wood Flat Stock:** Panels containing wood including but not limited to redwood stocks, plywood panels, particle boards, composition hardboards, and any other panels containing solid wood or wood product. (Adopted March 20, 1985)

8-23-222 **Volatile Organic Compound:** Any organic compound (excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate) which would be emitted during use, application, curing or drying of a solvent or surface coating.

222.1 For purposes of calculating VOC content of a coating, any water or the following non-precursor organic compounds:

methylene chloride
1,1,1 trichloroethane
1,1,2 trichlorotrifluoroethane (CFC-113)
trichlorofluoromethane (CFC-11)
dichlorodifluoromethane (CFC-12)
dichlorotetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC-115)
chlorodifluoromethane (HCFC-22)
trifluoromethane (HFC-23)
acetone
parachlorobenzotrifluoride (PCBTF)
cyclic, branched or linear, completely methylated siloxanes (VMS)

shall not be considered to be part of the coating.

(Adopted June 21, 1989; Amended December 20, 1995)

8-23-223 **Non-Heat-Set Ink:** An ink which dries by oxidation and absorption into the substrate without the use of heat from dryers or ovens. (Adopted June 21, 1989)

8-23-224 **Key System Operating Parameter:** An air pollution abatement equipment operating parameter, such as temperature, flow rate or pressure, that ensures operation of the abatement equipment within manufacturer specifications and compliance with the standards in Section 8-23-301. (Adopted June 15, 1994)

8-230-300 STANDARDS

8-23-301 **Emission Limits:** A person shall not apply to any wood flat stock or wood panel any coating in excess of the following limits, (expressed as grams of VOC per liter of coating used, excluding water) unless emissions to the atmosphere are controlled to an equivalent level by air pollution abatement equipment with an abatement device efficiency of at least 90% and meets the requirements of Regulation 2, Rule 1:

Wood Flat Stock Coating	250	(2.1 lbs/gal)
Adhesive	250	(2.1 lbs/gal)
Inks	250	(2.1 lbs/gal)

(Amended March 20, 1985; June 21, 1989; October 6, 1993)

8-23-302 **Deleted June 21, 1989**
8-23-303 **Deleted June 21, 1989**
8-23-304 **Deleted June 21, 1989**
8-23-305 **Deleted October 6, 1993**

8-23-400 ADMINISTRATIVE REQUIREMENTS

8-23-401 **Coating List:** Any person subject to Section 8-23-301 shall maintain a current list of coatings and adhesives in use which provides all of the data necessary to evaluate compliance. (Amended March 20, 1985; June 21, 1989)

8-23-402 **Deleted October 6, 1993**

8-23-500 MONITORING AND RECORDS

8-23-501 **Records:** Any person subject to this Rule shall maintain records on a daily basis that provide the following information, as applicable:

a. coating and mix ratio of components in the coating or adhesive used
b. quantity of each coating or adhesive applied
c. description of substrate coated
d. oven or cure temperature
e. type and amount of solvent used for cleanup and surface preparation

(Adopted June 21, 1989)

8-23-502 **Air Pollution Abatement Equipment, Recordkeeping Requirements:** Any person operating air pollution abatement equipment to comply with Section 8-23-301, in addition to Section 8-23-501, shall record key system operating parameters on a daily basis. (Adopted June 15, 1994)

8-23-600 MANUAL OF PROCEDURES

8-23-601 **Analysis of Samples:** Samples of volatile organic compounds as defined in this Rule shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 21 or 22. (Amended June 21, 1989; June 15, 1994)

8-23-602 **Determination of Emissions:** Emissions of precursor organic compounds as specified in Sections 8-23-301 shall be measured as prescribed by any of the following methods: 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. When either EPA Method 25 or 25A is used, control device equivalency shall be determined as prescribed in 55 FR 26865 (June 29, 1990). A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule.

(Adopted March 20, 1985; Amended June 21, 1989; June 15, 1994)

REGULATION 8
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REGULATION 8
ORGANIC COMPOUNDS
RULE 24
PHARMACEUTICAL AND COSMETIC MANUFACTURING OPERATIONS

8-24-100 GENERAL

8-24-101 **Description:** The purpose of this Rule is to limit emissions of organic compounds from the manufacture of pharmaceutical and cosmetic products or devices.

8-24-110 **Exemption, Small User:** The requirements of Sections 8-24-301, 302, 303, 305, 306, 307 and 502 shall not apply to facilities that emit, 6.8 kg (15 lbs) per day or less of unabated organic compounds provided the requirements of Section 8-24-501 are met. (Calculations shall not include surface preparation and cleanup solvent.) (Amended July 11, 1990)

8-24-111 **Exemption, Ethylene Oxide Sterilizers:** Ethylene oxide sterilizers which are subject to the provisions of Regulation 11, Rule 9, are exempt from the provisions of Section 8-24-303. (Adopted July 11, 1990)

8-24-200 DEFINITIONS

8-24-201 **Cosmetics Manufacturing Plant:** Any plant producing or blending chemicals for use in cosmetic products and/or manufacturing cosmetic products.

8-24-202 **In-Process Tank:** Containers used for mixing, blending, heating, reacting, holding, crystallizing, evaporating, or cleaning operations in the manufacture of pharmaceuticals or cosmetics.

8-24-203 **Organic Compound:** Any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, or carbonates, ammonium carbonates, methane, trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), chlorodifluoromethane (CFC-22), trifluoromethane (CFC-23), trichlorotrifluoroethane (CFC-113), dichlorotetrafluoroethane (CFC-114), chloropentafluoroethane (CFC-115), 1,1,1,trichloroethane and methylene chloride.

8-24-204 **Pharmaceutical Manufacturing Plant:** Any plant producing or blending chemicals for use in pharmaceutical products and/or employing chemical processes in the manufacture of pharmaceutical products or medical devices.

8-24-205 **Approved Emission Control System:** A system for reducing emissions to the atmosphere, consisting of an abatement device and a collection system, which achieves the abatement efficiency specified in the applicable standards at all times during the operation of the equipment being controlled. (Adopted June 15, 1994)

8-24-206 **Key System Operating Parameter:** An emission control system operating parameter, such as temperature, flow rate or pressure, that ensures operation of the abatement equipment within manufacturer specifications and compliance with the standards in Section 8-24-301.2, 302, 303, and 305. (Adopted June 15, 1994)

8-24-300 STANDARDS

8-24-301 **Reactors, Distillation Columns, Crystallizers & Centrifuges:** A person shall not emit more than 6.8 kg (15 lbs) or organic compounds per day from any reactor, distillation column, crystallizer or centrifuge unless such emissions are reduced by one of the following:

301.1 Surface condensers for the control of organic compounds having the outlet gas temperature controlled as follows:

Vapor Pressure of Organic Compounds at 20oC (68oF)		Maximum Condenser Outlet Gas Temp.	
mm Hg	Psia	oC	(oF)
26-52	(0.5-1.0)	25	(77)
52-78	(1.0-1.5)	10	(50)
78-150	(1.5-2.9)	0	(32)
150-300	(2.9-5.8)	-15	(5)
over 300	(over 5.8)	-25	(-13)

301.2 Any other approved emission control system that meets the requirements of Regulation 2, Rule 1 that reduces emissions by at least as much as would have occurred using a surface condenser specified in subsection 8-24-301.1

(Amended July 11, 1990; June 15, 1994)

8-24-302 **Separation Operations:** A person shall not emit more than 15 kg (33 lbs) or organic compounds per day from any rotary vacuum filter or any other filter or separation device having an exposed liquid surface where the liquid contains organic compounds with a combined vapor pressure of 26 mm Hg (0.5 psia) or more at 20°C (68°F) unless such emissions are reduced by 90 percent on a mass basis.

(Amended July 11, 1990)

8-24-303 **Sterilizers:** A person shall not operate any chemical sterilizer using gaseous organic compounds unless the following condition is met:

303.1 Deleted July 11, 1990

303.2 Emissions of organic compounds shall not exceed 15 kg (33 lbs) per day from any such sterilizer unless such emissions are reduced by at least 75% on a mass basis. (Amended July 11, 1990)

8-24-304 **In-Process Tanks:** A person shall not use in-process tanks for material containing organic liquids unless a cover is provided. These covers must remain closed, unless production, sampling, maintenance, loading or unloading procedures require operator access.

8-24-305 **Air Dryers:** A person shall not emit more than 15 kg (33 lbs) of organic compounds per day from any air dryer unless such emissions are reduced by at least 90percnet by weight.

8-24-306 **Bulk Loading:** A person shall not transfer organic liquids having vapor pressure greater than 212 mm Hg (4.1 psia) at 20°C (68°F) from any rail car or tank truck into any storage tank with a capacity greater than 7,500 liters (2,000 gal.) unless organic compound emissions during transfer are reduced by 90 percent by weight.

8-24-307 **Storage Tanks:** All storage tanks that store organic liquids with a vapor pressure greater than 78 mm Hg (1.5 psia) at 20°C (68°F) shall be equipped with pressure/vacuum vents set at a minimum ± 2 mm Hg (± 0.03 psia).

8-24-308 **Operating Requirements:** An operator shall repair all leaks from which organic liquids can be observed to be running or dripping. The repair shall be completed the first time the equipment is off-line for a period long enough to complete the repair.

8-24-309 **Surface Preparation and Cleanup Solvent:** The requirements of this Section shall apply to any person using organic solvent for surface preparation and cleanup.

309.1 A person shall use closed containers for the storage or disposal of cloth or paper used for solvent surface preparation and cleanup.

309.2 A person shall store fresh or spent solvent in closed containers.

(Adopted July 11, 1990)

8-24-400 ADMINISTRATIVE REQUIREMENTS

8-24-401 Deleted July 11, 1990

8-24-402 Compliance Schedule, Loss of Exemption: Any person who becomes subject to the requirements of this Rule through loss of exemption in Section 110 shall comply with the following increments of progress.

402.1 By January 1, 1991, submit an application to the APCO for Authority to Construct.

402.2 By June 1, 1991, be in final compliance. (Adopted July 11, 1990)

8-24-500 MONITORING AND RECORDS

8-24-501 Smaller-User Records: Any person seeking to satisfy the conditions of Section 8-24-110 shall comply with the following requirements:

501.1 The user shall keep records on a daily basis which show the types and amounts of organic compounds used.

501.2 Such records shall be retained and available for inspection by the APCO for the previous 24-month period. (Adopted July 11, 1990)

8-24-502 Organic Compound Processing Records: Any person subject to Sections 8-24-301, 302, 303, or 305 shall:

502.1 Maintain a current list of organic compounds in use including the vapor pressure of each compound at 20°C.

502.2 Record on a daily basis the types and amounts of organic compounds used.

502.3 Record on a daily basis approved emission control system key system operating parameters.

502.4 Retain and have such records available for inspection by the APCO for the previous 24-month period. (Adopted July 11, 1990; Amended June 15, 1994)

8-24-600 MANUAL OF PROCEDURES

8-24-601 Analysis of Samples: Samples of organic compounds as specified in Section 8-24-300 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 13. (Adopted March 17, 1982; Amended July 11, 1990)

8-24-602 Determination of Emissions: Emissions of organic compounds as specified in Sections 8-24-110, 301, 302, 303 and 305 shall be measured as prescribed by any of the following methods: 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. When either EPA Method 25 or 25A is used control device equivalency shall be determined as prescribed in 55 FR 26865 (June 29, 1990). A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule.

(Adopted March 17, 1982; Amended June 15, 1994)

REGULATION 8
ORGANIC COMPOUNDS
RULE 25
PUMP AND COMPRESSOR SEALS AT PETROLEUM REFINERIES, CHEMICAL PLANTS, BULK PLANTS AND BULK TERMINALS

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REGULATION 8
ORGANIC COMPOUNDS
RULE 25
PUMP AND COMPRESSOR SEALS AT PETROLEUM REFINERIES, CHEMICAL PLANTS, BULK PLANTS AND BULK TERMINALS
(Adopted July 2, 1980)

8-25-100 GENERAL

8-25-101 Description: The purpose of this Rule is to limit emissions of organic compounds, including methane, from pump and compressor seals at petroleum refineries, chemical plants, bulk plants and bulk terminals.
(Amended March 17,1982; July 20, 1983; March 4, 1992)

8-25-110 Deleted March 4, 1992

8-25-111 Deleted September 6, 1989

8-25-112 Deleted September 6, 1989

8-25-113 Exemption, Controlled Seal Systems For Pumps: Except for Section 8-25-504, the provisions of this Rule shall not apply to pump seals vented to a vapor recovery or disposal system which reduces the emissions of organic compounds from the pump seals to less than 0.3 pound per day.
(Amended August 4, 1982; July 20, 1983; March 4, 1992; June 1, 1994)

8-25-114 Deleted September 6, 1989

8-25-115 Limited Exemption, Initial Boiling Point: The provisions of Sections 8-25-401, 402, 403, 405 and 503 shall not apply to pumps and compressors which handle organic liquids having an initial boiling point greater than 150°C (302°F).
(Adopted March 4, 1992)

8-25-116 Exemption, Research and Development Facilities: The provisions of this rule shall not apply to pumps and compressors which produce only non-commercial products solely for research and development purposes. (Adopted March 4, 1992)

8-25-117 Limited Exemption, Small Facilities: The provisions Section 8-25-302, 303, 304, 305 and 306 of this rule shall not apply to facilities which have less than 10 pumps.
(Adopted March 4, 1992)

8-25-118 Exemption, Controlled Seal Systems For Compressors: Except for Section 8-25-504, the provisions of this Rule shall not apply to compressor seals vented to a vapor recovery or disposal system which reduces the emissions of organic compounds from the compressor seals to less than 1.7 pound per day.
(Adopted March 4, 1992; Amended June 1, 1994)

8-25-200 DEFINITIONS

8-25-201 Background: The ambient concentration of total organic compounds determined at least 1 meter (3 feet) upwind from the pump or compressor seal to be inspected and not influenced by any specific emission point as indicated by a hydrocarbon analyzer specified by Section 8-25-501.
(Amended March 17, 1982; September 6, 1989; March 4, 1992)

8-25-202 Essential Pump or Compressor: A pump or compressor which cannot be taken out of service without reducing by more than 33% the throughput of the process unit which it serves.

8-25-203 Leak Minimization: Reducing the leak to the lowest achievable level using best modern practices and without shutting down the process which the pump or compressor serves. (Amended August 4, 1982; March 4, 1992)

8-25-204 **Leak Repair:** Tightening, adjusting or replacing the seal of a pump or compressor which reduces leakage to the atmosphere below the applicable standard in Section 8-25-301, 302, 303, 305 or 307. (Amended August 4, 1982; March 4, 1992)

8-25-205 **Process Unit:** A manufacturing process which is independent of other processes and is continuous when supplied with a constant feed or raw materials and sufficient storage facilities for the final product.

8-25-206 **Petroleum Refinery:** Any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants or other products through distillation of petroleum or through redistillation, cracking, rearrangement or reforming of unfinished petroleum derivatives.

8-25-207 **Chemical Plant:** Any facility engaged in producing organic or inorganic chemicals and/or manufacturing chemical products by chemical processes. Any facility or operation that has 28 as the first two digits in their Standard Industrial Classification Code as determined from the Standard Industrial Classification Manual. Chemical plants include, but are not limited to, facilities that manufacture: industrial inorganic and organic chemicals; plastic and synthetic resins, synthetic rubber, synthetic and other man made fibers; drugs; soap, detergents and cleaning preparations, perfumes, cosmetic and other toilet preparations; paints, varnishes, lacquers, enamels and allied products; agricultural chemicals; safflower and sunflower oil extracts; re-refining. (Adopted July 20, 1983; Amended March 4, 1992)

8-25-208 **Liquid Leak:** Dripping of liquid organic compounds at a rate of greater than 3 drops per minute and a concentration of organic compounds as indicated by a hydrocarbon analyzer specified by Section 8-25-501 that exceeds the applicable leak standard in Section 8-25-301, 302, or 303. Adopted September 6, 1989; March 4, 1992)

8-25-209 **Bulk Plants and Terminals:** A distribution facility which is subject to Regulation 8, Rule 6, 33 or 39. (Adopted March 4, 1992)

8-25-210 **Organic Compound:** Any compound of carbon, excluding methane, carbon monoxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate. (Adopted March 4, 1992)

8-25-211 **Quarter:** One of the four consecutive 3-month divisions of the calendar year beginning on January 1. (Adopted March 4, 1992)

8-25-212 **Inspection:** The determination of the concentration of total organic compounds leaking from a pump or compressor using a portable hydrocarbon analyzer as required by Section 8-25-501. (Adopted March 4, 1992)

8-25-213 **Leak:** The concentration of total organic compounds as indicated by a hydrocarbon analyzer specified by Section 8-25-501 measured above background, expressed as methane and measured 1 centimeter or less from the leak source. (Adopted March 4, 1992)

8-25-214 **Total Organic Compounds:** The concentration of organic compounds as indicated by a hydrocarbon analyzer as specified by Section 8-25-501. Effective January 1, 1995, total organic compounds shall include methane. (Adopted March 4, 1992)

8-25-215 **Turnaround:** The scheduled shutdown of a unit for maintenance and repair work. (Adopted March 4, 1992)

8-25-216 **Reciprocating Pump:** A positive displacement pump in which a plunger or piston displaces a given volume of fluid for each stroke. (Adopted March 4, 1992)

8-25-217 **Gear Pump:** A rotary pump in which two or more gears mesh to provide a pumping action. (Adopted March 4, 1992)

8-25-218 **Small Facility:** A chemical plant that has less than 10 pumps. (Adopted March 4, 1992)

8-25-219 **Large Facility:** A chemical plant that has 10 or more pumps. (Adopted March 4, 1992)

8-25-300 STANDARDS

8-25-301 Pump and Compressor Operating Requirements: Until January 1, 1993 for large facilities, a person shall not use any pump or compressor handling precursor organic compounds in a petroleum refinery or chemical plant if the concentration of precursor organic compounds exceeds 10,000 ppm (expressed as methane), measured at a distance of 1 cm or less from the potential source, unless the following requirements are satisfied:

301.1 If the pump or compressor is not essential, that pump or compressor shall m be repaired within 15 days of discovery of the leak.

301.2 If the spare pump or compressor also exceeds the limitation of this section, leak repairs to either pump or compressor shall be completed within 15 days of discovery of its leak and the other pump or compressor may be operated until repairs are completed.

301.3 **Deleted September 6, 1989**

301.4 **Deleted September 6, 1989**

301.5 If the pump or compressor has a packed seal and is essential, the leak shall be minimized within 15 days of its discovery.

301.6 If the pump or compressor is essential, and has been leak minimized as required by subsection 8-25-301.5 and still exceeds the limitation of this section, that pump or compressor shall be repaired at the next scheduled turnaround of the process unit.

(Amended August 4, 1982; July 20, 1983; September 6, 1989; March 4, 1992)

8-25-302 Pumps: Effective January 1, 1993, any pump that leaks in excess of the standard specified in the table below is a violation of this rule unless the leak has been discovered by the operator, minimized within 24 hours and repaired within 7 days; or if the leak has been discovered by the APCO, repaired within 24 hours.

Effective Date	Leak Standard
January 1, 1993	1000 ppm
January 1, 1997	500 ppm

(Adopted March 4, 1992)

8-25-303 Compressors: Effective January 1, 1993, any compressor that leaks in excess of the standard specified in the table below is a violation of this rule unless the leak has been discovered by the operator, minimized within 24 hours and repaired within 7 days; or if the leak has been discovered by the APCO, repaired within 24 hours.

Effective Date	Leak Standard
January 1, 1993	1000 ppm
January 1, 1997	500 ppm

(Adopted March 4, 1992)

8-25-304 Non-repairable Pumps and Compressors: Effective January 1, 1993, any pump or compressor which cannot be repaired as required by Section 8-25-302 or 303 must comply with the following conditions:

304.1 The pump or compressor must be repaired or replaced within 5 years or at the next scheduled turnaround, whichever is first.

304.2 For pumps and compressors subject to this rule including those pumps and compressors exempted under Section 8-25-113, the number of pumps and compressors awaiting repair shall not exceed the values expressed in the table below. Spared pumps and compressors must be repaired and cannot be included in the percent awaiting repair.

Effective Date	Percent
January 1, 1993	10%
January 1, 1997	1%

(Adopted March 4, 1992)

8-25-305 **New or Replaced Pumps and Compressors:** Effective January 1, 1995, any repaired or replaced pump or compressor as required by Subsection 8-25-304.1 or any new pump or compressor, except reciprocating or gear pumps, shall not leak in excess of 500 ppm for four consecutive quarters. (Adopted March 4, 1992)

8-25-306 **Repeat Leakers:** Effective January 1, 1993, any pump or compressor found to be leaking 2 times in a year by the APCO in excess of the standard shall comply with the requirements of Sections 8-25-304 and 305. (Adopted March 4, 1992)

8-25-307 **Liquid Leak:** Effective January 1, 1993, any pump or compressor having a liquid leak as defined in Section 8-25-214 is a violation of this rule unless the leak has been discovered by the operator, minimized within 24 hours and repaired within 7 days. (Adopted March 4, 1992)

8-25-400 **ADMINISTRATIVE REQUIREMENTS**

8-25-401 **Measurement Schedule:** Any person subject to this Rule shall comply with the following inspection requirements:

401.1 Any pump or compressor subject to this Rule which exceeds the limitations of Section 8-25-301, 302, 303, 305, or 307 shall be measured for leaks within 7 days after leak repairs.

401.2 Pumps and compressors subject to this Rule shall be measured for leaks at least once a quarter by the person subject to this Rule.

(Amended August 4, 1982; July 20, 1983; September 6, 1989; March 4, 1992)

8-25-402 **Inspection Plan:** Any pump or compressor with a leak in excess of the applicable limitation in Section 8-25-301, 302, 303, 305 or 307 which has been detected by the operator and is awaiting repair shall be identified in a manner which is readily observable by the APCO.

(Adopted July 20, 1983; Amended September 6, 1989; March 4, 1992)

8-25-403 **Visual Inspection Schedule:** All pumps and compressors handling organic compounds shall be visually inspected daily for leaks. If a leak is observed, the concentration of organic compounds shall be determined.

(Amended August 4, 1982; Renumbered July 20, 1983; Amended September 6, 1989)

8-25-404 **Deleted March 4, 1992**

8-25-405 **Pump and Compressor Identification:** All pumps or compressors shall be identified with a unique permanent identification code approved by the APCO. This identification code shall be used to refer to the pump or compressor location, and corresponding records relating to the pump or compressor or its successors.

(Amended 8/4/82; Amended and Renumbered 7/20/83; Amended 3/4/92)

8-25-406 **Leaking Pumps and Compressors:** Any pump or compressor found to be leaking in excess of the applicable standard of Section 8-25-301, 302, 303, or 307 shall be tagged with a brightly colored weatherproof tag indicating the date the leak was detected. (Adopted March 4, 1992)

8-25-500 **MONITORING AND RECORDS**

8-25-501 **Portable Hydrocarbon Detector:** Any instrument used for the measurement of organic compounds shall be a combustible gas indicator that has been approved by the APCO, and shall meet the specifications and performance criteria of, and be calibrated in accordance with, EPA Reference Method 21 (40 CFR 60, Appendix A). (Amended August 4, 1982; September 6, 1989; March 4, 1992)

8-25-502 **Deleted March 4, 1992**

8-25-503 **Records:** Any person subject to the requirements of this rule shall maintain records that provide the following information:

503.1 The pump or compressor identification code, type and location.

503.2 The date of all inspections and reinspections and the corresponding leak concentration measured as specified by Section 8-25-400.

503.3 Records shall be maintained for at least 5 years and shall be made available upon request.

503.4 Monthly records of all non-repairable pumps and compressors subject to the provisions of Section 8-25-304 shall be maintained and contain the identification code, equipment type, location, last unit turnaround date, leak concentration monthly measurement and date, and total number of all non-repairable pumps and compressors awaiting repair.

(Adopted March 4, 1992)

8-25-504 **Burden of Proof:** The burden of proof of eligibility for exemption from this rule is on the operator. (Adopted June 1, 1994)

8-25-600 **MANUAL OF PROCEDURES**

8-25-601 **Analysis of Samples:** Samples of organic compounds as defined in Section 8-25-114 shall be analyzed for Initial Boiling Point as prescribed in ASTM D 1078-78. (Adopted March 17, 1982; March 4, 1992)

8-25-602 **Inspection Procedure:** Inspection of pumps and compressors shall be conducted as prescribed by EPA Reference Method 21 (40 CFR 60, Appendix A). (Adopted September 6, 1989; March 4, 1992)

8-25-603 **Determination of Control Efficiency:** The control efficiency as specified by Section 8-25-113 shall be determined by any of the following methods: 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule. (Adopted March 4, 1992; Amended June 1, 1994)

REGULATION 8
ORGANIC COMPOUNDS
RULE 26
MAGNET WIRE COATING OPERATIONS

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REGULATION 8
ORGANIC COMPOUNDS
RULE 26
MAGNET WIRE COATING OPERATIONS
(Adopted May 7, 1980)

8-26-100 GENERAL

8-26-101 Description: The purpose of this Rule is to limit the emission of volatile organic compounds (VOC) from magnet wire coating operations.

8-26-110 Exemption, Small User: The requirements of this Rule shall not apply to sources that emit, at their design production rating, 6.8 kg. (15 lbs.) per day or less of VOC.

8-26-111 Exemption, Electrical Machinery: The requirements of this Rule shall not apply to the coating of electrical machinery and equipment subassemblies such as motor housings, rotors, stators or armatures.

8-26-200 DEFINITIONS

8-26-201 Approved Emission Control System: A system for reducing emissions of VOC to the atmosphere, consisting of a control device and a collection system, which is approved by the APCO and which satisfies the following conditions:

201.1 The control device shall achieve the control efficiency specified in Section 8-26-301 at all times during normal operation of the equipment being controlled.

201.2 The collection system shall vent all coating, drying, and curing exhausts to the control device.

201.3 The collection system shall be designed and operated in accordance with good engineering practice for maximum collection emissions.

8-26-202 Magnet Wire: Wire used in electromagnetic field application in electrical machinery and equipment such as transformers, motors, generators, and magnetic tape recorders.

8-26-203 Magnet Wire Coating Operation: The process of applying insulation coatings such as varnish or enamel on magnet wire where wire is continuously drawn through a coating applicator.

8-26-204 Volatile Organic Compound: Any organic compound (excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate) which would be emitted during use, application, curing or drying of a solvent or surface coating.

204.1 For purposes of calculating VOC content of a coating, any water or any of the following non-precursor organic compounds shall not be considered to be part of the coating:

acetone
parachlorobenzotrifluoride (PCBTF)
cyclic, branched or linear completely methylated siloxanes (VMS)

(Adopted December 20, 1995)

8-26-300 STANDARDS

8-26-301 Magnet Wire Coating Requirements: Effective January 1, 1989, a person shall not apply any magnet wire coating unless one or more of the following conditions is satisfied:

301.1 The coating operation uses a magnet wire coating which contains less than 200 g/liter (1.67 lb./gal.), excluding water, of VOC, or

301.2 Emissions of VOC are controlled by an approved emission control system, as defined in this rule, with a control device efficiency of at least 90% on a mass basis.

8-26-600 MANUAL OF PROCEDURES

8-26-601 Analysis of Samples: Samples of volatile organic compounds as defined in Section 8-26-301 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 21 or 22. (Adopted March 17, 1982)

8-26-602 Determination of Emissions: Emissions of volatile organic compounds as specified in Section 8-26-110 and 301 shall be measured as prescribed in the Manual of Procedures, Volume IV, ST-7. (Adopted March 17, 1982)

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RULE 27

SYNTHETIC SOLVENT DRY CLEANING OPERATIONS

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8-27-600 MANUAL OF PROCEDURES

8-27-601 Determination of Emissions
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REGULATION 8

ORGANIC COMPOUNDS

RULE 27

SYNTHETIC SOLVENT DRY CLEANING OPERATIONS

(Adopted March 5, 1980)

8-27-100 GENERAL

8-27-101 Description: The purpose of this Rule is to limit emissions of synthetic solvent from dry cleaning operations. (Amended September 5, 1990)

8-27-110 Exemption, Other Solvents: This Rule does not apply to cleaning plants which do not use synthetic solvents. (Amended September 5, 1990)

8-27-111 Exemption, Small Users: Until December 1, 1991, the provisions of Section 8-27-302 shall not apply to dry cleaning plants which consume less than 1200 liters (320 gallons) of synthetic solvents per year, provided the provisions of Section 8-27-402 are met. (Amended September 5, 1990)

8-27-112 Exemption, Space and Steam Limitations: The provisions of Section 8-27-302 shall not apply to dry cleaners which satisfy one of the following conditions:

112.1 A control device cannot be accommodated because of inadequate space provided the requirements in Section 8-27-403 are satisfied.

112.2 Until December 1, 1991, excess steam capacity in the plant is insufficient to regenerate a carbon adsorption system, provided the provisions of Section 8-27-402 are met.

112.3 Until December 1, 1991, the plant operator has demonstrated to the satisfaction of the APCO that other hardships justify such an exclusion, provided the provisions of Section 8-27-402 are met.

(Amended September 5, 1990)

8-27-200 DEFINITIONS

8-27-201 Control Device: A device for reducing emissions of synthetic solvent to the atmosphere including but not limited to, carbon adsorbers and refrigerated condensers. (Adopted September 5, 1990)

8-27-202 Drying Cabinets: Dry cleaning equipment consisting of a housing in which articles are hung to dry and used only to steam dry articles which would otherwise be damaged by the heat and tumbling action of a drying tumbler. (Adopted September 5, 1990)

8-27-203 Drying Tumbler: Dry cleaning equipment which dries articles previously cleaned with synthetic solvent. For purposes of this rule, drying tumblers include solvent reclaimers. (Adopted September 5, 1990)

8-27-204 Dry-to-Dry Unit: Dry cleaning equipment which combines the functions of cleaning and drying in one unit and where articles to be cleaned are placed in the equipment and not removed until the drying cycle is complete. (Adopted September 5, 1990)

8-27-205 Dry Weight of Articles Cleaned: The weight of articles prior to being cleaned in synthetic solvent. (Adopted September 5, 1990)

8-27-206 Solvent Liquid Leak: a liquid leak of more than 3 drops per minute. (Adopted September 5, 1990)

8-27-207 **Solvent Reclaimer:** Dry cleaning equipment used only to dry articles which have been cleaned in a separate piece of equipment and which is vented to a carbon adsorber or other control device. (Adopted September 5, 1990)

8-27-208 **Solvent Still:** A device used to distill or purify solvent. (Adopted September 5, 1990)

8-27-209 **Solvent Vapor Leak:** A vapor leak which is a visible vapor mist. (Adopted September 5, 1990)

8-27-210 **Synthetic Solvent:** Any halogenated hydrocarbons including, but not limited to, perchloroethylene, 1,1,1, trichloroethane and trichlorotrifluoroethane (CFC-113). (Adopted September 5, 1990)

8-27-208 **Waterproofing Operations:** The immersion of articles into a water-repellant solution. (Adopted September 5, 1990)

8-27-300 **STANDARDS**

8-27-301 **Operating Requirements:** A person shall not operate any dry cleaning equipment which uses synthetic solvents unless all of the following requirements are satisfied:

301.1 There shall be no solvent liquid or solvent vapor leaks from any dry cleaning equipment and related connections or the leaking equipment shall not be operated.

301.2 The residue from a solvent still shall not contain more than 0.6 kg of solvent per kg of solvent still waste.

301.3 Used filtration cartridges shall be either drained in the filter housing for at least 24 hours before being discarded or for at least 12 hours provided that they are subsequently dried in a closed container which is vented to a control device approved by the APCO.

301.4 Used diatomaceous earth filters shall be cooked or treated so that the residue contains no more than 0.25 kg of solvent per kg of solvent still or filter waste.

301.5 Any other filtration or distillation system can be used if it can be demonstrated to the satisfaction of the APCO that it reduces waste losses below 0.01 kg per kg of dry weight of articles cleaned.

301.6 All waste from dry cleaning operations including solvent still or filter waste and used filtration cartridges must be maintained and transported in sealed metal containers and shall be disposed of as set forth in California State law regarding hazardous waste disposal as described in Title 22, Division 4, Chapter 30 of the California Code of Regulations.

301.7 All synthetic solvent and waste storage vessels, washers, waterproofing tanks, lint traps, equipment doors and equipment where synthetic solvents may be exposed to the atmosphere must be kept closed at all times, except when required to be open for proper operation or maintenance.

301.8 All carbon adsorbers or other control devices required by this Rule shall be installed, operated and maintained according to the manufacturer's recommendations. (Amended November 21, 1984, September 5, 1990)

8-27-302 **Emission Control Requirements:** A person shall not operate any dry cleaning equipment which uses synthetic solvents unless one of the following requirements is satisfied:

302.1 All exhaust gases from drying tumblers and cabinets are vented through a carbon adsorber or other control device which has been approved in writing by the APCO and which reduces emissions of synthetic solvents to the atmosphere by at least 90 percent by weight, or

302.2 All of the exhaust gases from drying tumblers and cabinets are vented through a carbon adsorber which has been approved in writing by the APCO and which reduces emission of synthetic solvents to the atmosphere to no more than 100 ppm before dilution; or

302.3 The air temperature at the outlet of a refrigerated condenser must reach 45°F or less during the cool-down period. A temperature gauge with a minimum range from 0°F to 150°F must be installed on the condenser outlet duct.

(Amended March 17, 1982, September 5, 1990)

8-27-303 **Equipment Requirements:** Effective September 5, 1990, no person shall install and subsequently operate any dry cleaning equipment which uses synthetic solvents unless such equipment consists of dry-to-dry units. (Adopted September 5, 1990)

8-27-304 **Prohibition of Use, Separate Drying Tumblers:** No person shall operate a separate drying tumbler installed after September 5, 1990 in conjunction with dry-to-dry equipment. (Adopted September 5, 1990)

8-27-305 **Waterproofing Operation Requirements:** A person shall not conduct any waterproofing operations which use synthetic solvents unless the following requirements are satisfied:

305.1 All articles which have been immersed in waterproofing solution shall be drained within the waterproofing tank until dripping ceases.

305.2 All articles removed from a waterproofing tank shall be immediately placed into a dryer. (Adopted September 5, 1990)

8-27-400 ADMINISTRATIVE REQUIREMENTS

8-27-401 Deleted September 5, 1990

8-27-402 **Compliance Schedule, Loss of Exemption:** Any person who becomes subject to the requirements of Section 8-27-302 through loss of exemption in Section 8-27-111 or Section 8-27-112 shall comply with the following increments of progress:

402.1 By July 1, 1991, submit a completed application for an Authority to Construct equipment necessary to achieve compliance with this rule.

402.2 By December 1, 1991, be in full compliance with the requirements of this rule. (Adopted September 5, 1990)

8-27-403 **Space Limitation Petition:** Any person seeking to satisfy the conditions of Subsection 8-27-112.1 shall comply with the following requirements:

403.1 The person shall petition the APCO in writing that space limitations prohibit the installation of a control device on dry cleaning equipment pursuant to Section 8-27-302. The petition shall include projected yearly synthetic solvent usage, equipment configuration, and a facility plot plan including locations of closest businesses and residences.

403.2 The APCO shall conduct a toxic risk assessment analysis for each space limitation petition received. If the APCO grants written approval, such approval may contain conditions to ensure that any risk is minimized.

403.3 If the APCO grants written approval, such petition will be repeated on an annual basis. (Adopted September 5, 1990)

8-27-500 MONITORING AND RECORDS

8-27-501 **Carbon Adsorber Operation Records:** Any person operating a carbon adsorber which is subject to the provisions of subsections 8-27-302.1 or 302.2 shall maintain records on a daily basis or on the day performed showing the dates on which the carbon was regenerated with steam. Such records shall be retained and available for inspection by the APCO for the previous 24-month period.

(Adopted September 5, 1990)

8-27-502 **Solvent Filtration Records:** Any person subject to the requirements of Subsection 8-27-301.5 shall maintain records of pre-washed weight of articles cleaned per load. Such records shall be retained and available for inspection by the APCO for the previous 24-month period. (Adopted September 5, 1990)

8-27-600 MANUAL OF PROCEDURES

8-27-601 Determination of Emissions: Emissions of synthetic solvents as specified in Section 8-27-302 shall be measured as prescribed in the Manual of Procedures, Volume IV, ST-31. (Adopted March 17, 1982, Amended September 5, 1990))

8-27-602 Analysis of Solvent Still Residue and Solvent Filtration Waste: Samples of solvent still residue as specified in subsection 8-27-301.2 and samples of solvent filtration waste as specified in subsections 8-27-301.4 and 301.5 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 37.

(Adopted September 5, 1990)

REGULATION 8
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RULE 28
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8-28-602 Determination of Control Efficiency
8-28-603 Deleted December 17, 1997

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ORGANIC COMPOUNDS
RULE 28
EPISODIC RELEASES FROM PRESSURE RELIEF DEVICES AT PETROLEUM REFINERIES AND CHEMICAL PLANTS

(Adopted July 16, 1980)

8-28-100 GENERAL

8-28-101 Description: The purpose of this Rule is to prevent the episodic emissions of organic compounds from pressure relief devices on any equipment handling gaseous organic compounds at petroleum refineries, and to collect information on episodic organic and inorganic compound emissions from petroleum refineries and chemical plants.

(Amended March 17, 1982, July 20, 1983, December 17, 1997)

8-28-110 Deleted September 6, 1989

8-28-111 Exemption, Evaporation Point: The provisions of this rule shall not apply to pressure relief valves which exclusively handle organic compounds exhibiting a 10% evaporation point greater than 150 degrees Celsius (302 degrees Fahrenheit) when using ASTM D-86 and/or inorganic compounds not listed in Section 8-28-401.5. The provisions of this rule shall also not apply to thermal relief valves that are vented to process drains or back to the pipeline.

(Amended September 6, 1989, December 17, 1997, March 18, 1998)

8-28-112 Exemption, Storage Tanks: The requirements of this rule shall not apply to any pressure relief device on storage tanks. (Amended December 17, 1997)

8-28-113 Exemptions, Research and Development Facilities: The provisions of this Rule shall not apply to research or development facilities which produce only non-commercial products for research and development purposes.

(Adopted June 1, 1994)

8-28-114 Limited Exemption, Small Refineries: Section 8-28-304.2 shall not apply to petroleum refineries processing less than 20,000 barrels per stream day of crude, unless the District's evaluation of the Process Hazards Analysis in Section 8-28-303.1 determines that it is cost-effective and technologically feasible for the refinery to control the pressure relief devices. (Adopted December 17, 1997)

8-28-200 DEFINITIONS

8-28-201 Chemical Plant: Any facility engaged in producing organic or inorganic chemicals and/or manufacturing products by chemical processes. Any facility or operation that has 28 as the first two digits in their Standard Industrial Classification Code as determined from the Standard Industrial Classification Manual published in 1972 by the Executive Office of the President, Office of Management and Budget. Chemical plants may include, but are not limited to the manufacture of: industrial inorganic and organic chemicals; plastic and synthetic resins, synthetic rubber, synthetic and other man-made fibers; drugs; soap, detergents and cleaning preparations, perfumes, cosmetics and other toilet preparations; paints, varnishes, lacquers, enamels and allied products; agricultural chemicals; safflower and sunflower oil extracts; re-refining, not including petroleum refineries.

(Adopted July 20, 1983, amended December 17, 1997)

8-28-202 Pressure Relief Valve: The automatic pressure-relieving device actuated by the static pressure upstream of the valve. (Renumbered July 20, 1983)

8-28-203 Rupture Disk: The thin metal diaphragm held between flanges.

(Renumbered July 20, 1983)

8-28-204 Deleted December 17, 1997

8-28-205 Deleted December 17, 1997

8-28-206 Deleted December 17, 1997

8-28-207 **Modified Source:** The same definition contained in District Regulation 2-2-223.

(Adopted December 17, 1997)

8-28-208 **Parallel Service:** Additional pressure relief devices which protect a common piece or pieces of equipment. These additional pressure relief devices may be installed as spares to facilitate maintenance or because the design relieving capacity cannot be obtained with a single pressure relieving device. The pressure relieving devices do not need to have the same pressure setting to be considered parallel.

(Adopted December 17, 1997)

8-28-209 **Petroleum Refinery:** Any facility that processes products as defined in Standard Industrial Classification Manual as Industry No. 2911, Petroleum Refining.

(Adopted December 17, 1997)

8-28-210 **Pressure Relief Device:** The automatic pressure-relieving device for discharges of organic compounds which prevents safety hazards, prevents pressures from exceeding the maximum allowable working pressure of the operating process equipment or prevents equipment damage. Such devices include, but are not limited to, pressure relief valves, emergency de-pressuring vents or rupture disks.

(Adopted December 17, 1997)

8-28-211 **Prevention Measure:** A reliable component, system, or program that will prevent a Release Event. Examples of prevention measures include, but are not limited to: (1) flow, temperature, level and pressure indicators with interlocks, deadman switches, monitors, or automatic actuators, (2) documented and verified routine inspection and maintenance programs, (3) inherent safer designs, (4) deluge systems. Operator training and documented and verified routine inspection and maintenance programs may count as only one of the 3 Prevention Measures required by Section 8-28-302.2, 8-28-303.2, and 8-28-304.1. A component, system or program with a high probability for failure shall not be considered a Prevention Measure.

(Adopted December 17, 1997)

8-28-212 **Process Hazards Analysis (PHA):** A PHA is an organized effort to identify and analyze the significance of hazardous scenarios associated with a process or activity. For the purposes of this rule, PHA's are used to pinpoint weaknesses in the design and operation of facilities that could lead to a Release Event and to provide the facility with information to aid in making decisions for preventing such events.

(Adopted December 17, 1997)

8-28-213 **Qualified Person:** An APCO approved person who is qualified to attest to the validity of the Prevention Measures Procedures and who is a registered professional engineer in the State of California with expertise in chemical, mechanical or safety engineering.

(Adopted December 17, 1997)

8-28-214 **Release Event:** Any release of organic or inorganic pollutant greater than 10 pounds resulting from a pressure relieving device, subject to this Rule, opening to the atmosphere. These events do not include releases that are vented to a vapor recovery or disposal system with at least 95% by weight organic compound control efficiency.

(Adopted December 17, 1997)

8-28-215 **Responsible Manager:** A person who is an employee of the facility or corporation, who possesses sufficient corporate authority and who is responsible for the management of the facility. (Adopted December 17, 1997)

8-28-300 **STANDARDS**

8-28-301 **Deleted December 17, 1997**

8-28-302 **Pressure Relief Devices at New or Modified Sources at Petroleum Refineries:** Any person installing a new refinery source or modifying an existing refinery source, that is equipped with at least one pressure relief device in organic compound service, shall meet all of the following conditions:

302.1 Meet the applicable requirement of Regulation 2, Rule 2, including Best Available Control Technology, and

302.2 Meet the Prevention Measures Procedures specified in Section 8-28-405.

(Adopted December 17, 1997)

8-28-303 **Pressure Relief Devices at Existing Sources at Petroleum Refineries:** After the next scheduled turnaround following July 1, 1998, use of a pressure relief device in organic compound service on any equipment at a Petroleum Refinery is prohibited, except when the device meets at least one of the following conditions prior to the equipment startup:

303.1 Vent all pressure relief devices from the source to a vapor recovery or disposal system with at least a 95 percent by weight organic compounds control efficiency, and the control system shall be properly sized per manufacturer's recommendations to handle the material from all devices it is intended to serve, or

303.2 Meet the Prevention Measures Procedures specified in Section 8-28-405.

(Adopted December 17, 1997; Amended March 18, 1998)

8-28-304 **Repeat Release – Pressure Relief Devices at Petroleum Refineries:** After the next scheduled turnaround following July 1, 1998, any petroleum refinery source that has at least one reportable Release Event from a pressure relief device in organic compound service, including those in parallel service, in any consecutive five calendar year period shall meet the following conditions:

304.1 Within 90 days of the first Release Event from a pressure relief device, the facility shall conduct an additional, separate Process Hazard Analysis and meet the Prevention Measures Procedures specified in Section 8-28-405; and conduct a failure analysis of the incident, to prevent recurrence of similar incidents. Within 120 days of the first Release Event, the facility shall equip each pressure relief device of that source with a tamperproof tell-tale indicator that will show that a release has occurred since the last inspection. The Process Hazard Analysis shall include an evaluation of the cost-effectiveness and technical feasibility of control devices to remedy the incident. This evaluation of control devices shall include, but shall not be limited to, the following: (1) installing additional flare gas compressor recovery capacity and (2) venting the pressure relief device that caused the Release Event to existing vapor recovery or disposal systems, and

304.2 Within one year of the second Release Event from a pressure relief device in organic compound service on the same source, including those in parallel service, the facility shall vent all the pressure relief devices that vent the second Release Event, including those in parallel service, to a vapor recovery or disposal system with at least 95 percent by weight organic compounds control efficiency, and the control system shall be properly sized per manufacturer's recommendations to handle the material from all devices it is intended to serve.

The five calendar year period of this section shall begin at the time that the District receives a Prevention Measure Plan as specified in Section 8-28-304.1.

(Adopted December 17, 1997; Amended March 18, 1998)

8-28-400 **ADMINISTRATIVE REQUIREMENTS**

8-28-401 **Reporting at Petroleum Refineries and Chemical Plants:** A Release Event from a pressure relief device at petroleum refineries and chemical plants shall be reported to the APCO on the next working day following the venting. In addition, the following information shall be submitted in writing to the APCO within 30 days following the Release Event:

401.1 Date, time, and duration of the Release Event in minutes.

401.2 Identification of the device by its unique number as required in Section 8-28-404 as well as its name and service commonly referred to by the facility.

401.3 Identification of the incident number assigned by the APCO when the event is reported within one working day.

401.4 Type and size of device.

401.5 Type and amount of material released in pounds, accurate to two significant digits. Reportable materials are: total organic compounds, ammonia,

hydrogen sulfide, chlorine, sulfur dioxide, sulfur trioxide, hydrofluoric acid, and difluoroethane.

401.6 Necessary information and assumptions used to report the duration and amount released during the event.

401.7 Cause of the event.

401.8 A schedule for action to prevent re-occurrence of the event.

401.9 Results of fugitive emission inspection of the device done in accordance with the requirements of section 8-28-402.

(Amended February 18, 1981, December 17, 1997, March 18, 1998)

8-28-402 **Inspection:** Any pressure relief device which has a Release Event and is subject to this Rule shall be inspected within 5 working days after actuation to confirm compliance with Regulation 8, Rule 18 and the results reported in accordance with Regulation 8-28-401.9.

(Amended September 6, 1989, June 1, 1994, December 17, 1997)

8-28-403 **Records**: Any person subject to this Rule shall comply with the following recordkeeping requirements:

403.1 Prevention measure records to demonstrate compliance with the standards in sections 8-28-302, 8-28-303, 8-28-304, and 8-28-405.

(Adopted September 6, 1989, amended June 1, 1994, December 17, 1997)

8-28-404 **Identification:** Any person subject to this rule shall comply with the following identification requirements:

404.1 All pressure relief valves subject to this rule shall be identified with a unique permanent identification code approved by the APCO. This identification code shall be used to refer to the pressure relief valve location. Records for each pressure relief valve shall refer to this identification code.

(Adopted June 1, 1994; Amended December 17, 1997)

8-28-405 **Prevention Measures Procedures**: All facilities using pressure relief devices in organic compound service which are subject to the standards in Section 8-28-300 and which have a potential for a Release Event shall comply with the following process safety requirements:

405.1 Explicitly establish training, equipment, inspection, maintenance and monitoring levels such that the pressure relief device releases are minimized and

405.2 Using a Process Hazards Analysis, predict, plan and implement either:

2.1 At least 3 consecutive Prevention Measures for the Release Event before a pressure relief device will release or

2.2 At least one Prevention Measure for the Release Event before a pressure relief device will release. For single Prevention Measure pressure relief devices that vent a Release Event, within one year of the Release Event, the facility shall vent these pressure relief devices, including those in parallel service, to a vapor recovery or disposal system with at least 95% by weight organic compound efficiency.

405.3 Must be approved and signed by a Qualified Person and a Responsible Manager.

405.4 Must be submitted for review to the APCO to determine if the plan meets the requirements of subsections 8-28-405.1 through 405.3. The APCO shall provide a 30-day public comment period and will consider all comments received during this period prior to approval or disapproval of the procedures.

(Adopted December 17, 1997; Amended march 18, 1998)

8-28-500 **MONITORING AND RECORDS**

8-28-501 **Deleted December 17, 1997**

8-28-600 **MANUAL OF PROCEDURES**

8-28-601 **Deleted December 17, 1997**

8-28-602 **Determination of Control Efficiency:** The control efficiency as specified Section 8-28-302.1, 8-28-303.1, 8-28-304.2, and 8-28-405.2.2 (with the exception of non-enclosed flares) shall be determined as prescribed by any of the following methods: 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. 3) Flare control efficiency calculations approved by the APCO and EPA in writing, or 4) other methods to demonstrate control efficiency approved by the APCO and EPA in writing. A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule.

(Adopted June 1, 1994; Amended December 17, 1997)

8-28-603 **Deleted December 17, 1997**

REGULATION 8
ORGANIC COMPOUNDS
RULE 29
AEROSPACE ASSEMBLY AND COMPONENT COATING OPERATIONS

INDEX

REGULATION 8
ORGANIC COMPOUNDS
RULE 29
AEROSPACE ASSEMBLY AND COMPONENT COATING OPERATIONS
(Adopted August 4, 1982)

8-29-100 GENERAL

8-29-101 Description: The purpose of this Rule is to limit the emission of volatile organic compounds from the surface preparation and coating of aerospace components and cleanup of aerospace coating equipment. (Amended November 1, 1989)

8-29-110 Exemption, Electronic Industries: The requirements of 8-29-305 and 306 shall not apply to fabrication of electronic components, including but not limited to microprocessors, control systems and instrumentation. (Amended February 3, 1993)

8-29-111 Exemption, Printed Circuit Boards: The requirements of this Rule shall not apply to coatings applied to assembled printed circuit boards. This coating operation is subject to Regulation 8, Rule 4. (Amended February 3, 1993)

8-29-112 Exemption, Low Usage Coatings: The requirements of Section 302 shall not apply to coatings with separate formulations that are used in volumes of less than 20 gallons per calendar year, provided the requirements of Section 8-29-402 are satisfied. No more than 200 gallons of low usage coating may be used per facility per calendar year. Records of coating usage shall be maintained as per Section 8-29-501. (Amended November 1, 1989; February 3, 1993; June 1, 1994)

8-29-113 Deleted February 3, 1993

8-29-114 Exemption, Paper-Fabric-Film Coating: The requirements of this Rule shall not apply to any source which is subject to and complies with the provisions of Regulation 8, Rule 12.

8-29-115 Exemption, Tank-type Stripper: The requirements of Section 8-29-305 shall not apply to a tank-type stripper employing a sealing fluid at least four inches in depth which floats on the stripper surface and which consists of:

115.1 Water, or

115.2 A fluid with a true vapor pressure of less than 10 mmHg (0.19 psia) at actual usage temperature. (Adopted December 7, 1983)

8-29-116 Exemption, Adhesives: The requirements of this Rule shall not apply to the application of adhesives. Application of adhesive is subject to the requirements of Regulation 8, Rule 4. (Adopted November 1, 1989)

8-29-117 Exemption, Aerosol Cans: The requirements of this Rule shall not apply to non-refillable handheld aerosol cans. Application of coating from aerosol cans is subject to the requirements of Regulation 8, Rule 49.
(Adopted November 1, 1989, Amended June 20, 1990)

8-29-118 Exemption, Stencil Coatings: The requirements of this Rule shall not apply to the application of coatings by template or hand in order to add designs, letters and/or numbers to the products. Stencil Coating is subject to the requirement of Regulation 8, Rule 4. (Adopted November 1, 1989)

8-29-119 Exemption, Solid Film Lubricant: The provisions of this Rule shall not apply to any solid film lubricant (anti-chafe coating). The application of solid film lubricant is subject to the requirements of Regulation 8, Rule 4. (Adopted November 1, 1989)

8-29-120 Exemption, Test Panels: The provisions of this Rule shall not apply to coating test panels used to evaluate coating performance. Such coating is subject to the requirements of Regulation 8, Rule 4. (Adopted November 1, 1989)

8-29-121 **Exemption, Satellite Coatings:** The provisions of Section 8-29-302 shall not apply to the coating of satellites or satellite components, provided records are maintained as per Section 8-29-501. Application of satellite coating is subject to the requirements of Regulation 8, Rule 4. (Adopted November 1, 1989)

8-29-122 **Exemption, High-Temperature-Curing Adhesive Bonding Primer:** The provisions of Section 8-29-302 and 310 shall not apply to the use of adhesive bonding primer that has a cure temperature in excess of 3250F, provided records are maintained as per Section 8-29-501. Application of high-temperature-curing adhesive bonding primer is subject to the requirements of Regulation 8, Rule 4. (Adopted November 1, 1989; Amended February 3, 1993)

8-29-123 **Exemption, Spray Application Equipment:** The requirements of Section 8-29-310 shall not apply to the following provisions:

123.1 The application of coatings to surface areas with limited access due to visual impairment which require a 360o spray-gun nozzle extension.

123.2 The application of waterborne extreme performance interior topcoat coatings.

123.3 The application of adhesive bonding primers and pretreatment wash primers.

123.4 The application of a textured finish coat. (Adopted February 3, 1993)

8-29-124 **Limited Exemption, Coating Records:** The requirements of Subsection 501.2 shall not apply to individual source operations using less than 75.7 liters (20 gal) of coating in any calendar year, unless otherwise specified in permit conditions pursuant to Regulation 2-1-403. A person shall maintain monthly records of coating usage under this exemption. (Adopted February 3, 1993)

8-29-200 **DEFINITIONS**

8-29-201 **Aerospace Component:** The fabricated part, assembly of parts or completed unit of any aircraft, helicopter, missile or space vehicle. For the purposes of this Rule, an aerospace component shall include any aerospace prototype or test model. (Amended November 1, 1989)

8-29-202 **Adhesive Bonding Primer:** A coating applied in a very thin film to aerospace metal for the primary purpose of providing a primer for a subsequent coat of structural adhesive. (Amended November 1, 1989)

8-29-203 **Deleted November 1, 1989**

8-29-204 **Electric or Radiation Effect Coatings:** Electrical conductive or insulative coatings and coatings used on radar and antennae enclosures. (Amended November 1, 1989)

8-29-205 **Flight Test Coating:** The coating applied to test aircraft to protect the test aircraft from corrosion and to provide required marking during flight test evaluation.

8-29-206 **Fuel Tank Coating:** A coating applied to the interior of a fuel tank or fuel-wetted areas of aircraft to protect it from corrosion. (Amended November 1, 1989)

8-29-207 **Maskant for Chemical Processing:** A coating applied directly to an aerospace component to protect surface areas when chemical milling, anodizing, aging, bonding, plating, etching and/or performing other chemical operations on the surface of the component.

8-29-208 **Pretreatment Wash Primer:** A coating which contains a minimum of 0.5% acid by weight for surface etching and is applied directly to bare metal surfaces to provide corrosion resistance and adhesion. (Amended November 1, 1989)

8-29-209 **Primer:** A coating applied directly to the aerospace component for purposes of corrosion prevention, protection from the environment, functional fluid resistance and adhesion of subsequent coatings. (Amended November 1, 1989)

8-29-210 **Deleted November 1, 1989**

8-29-211 **Stripper:** An organic compound mixture applied to remove temporary protective coating, maskant for chemical processing, surface coating or coating residue.
(Amended February 3, 1993)

8-29-212 **Temporary Protective Coating:** A coating applied to an aerospace component to protect it from any mechanical or environmental damage during manufacturing.
(Amended February 3, 1993)

8-29-213 **Topcoat:** Coatings applied over a primer or intermediate coating for purposes such as appearance, identification or protection. (Amended November 1, 1989)

8-29-214 **Tank-type Stripper:** A tank employing a stripping solution where parts are immersed for removal of temporary protective coating, maskant for chemical processing, surface coating or coating residue.
(Adopted December 7, 1983; Amended February 3, 1993)

8-29-215 **Interior Topcoat:** A topcoat used in interior habitable spaces of aircraft.
(Adopted November 1, 1989; Amended February 3, 1993)

8-29-216 **Electrostatic Spray:** Equipment used to apply coating by charging atomized particles that are deposited by electrostatic attraction.
(Adopted November 1, 1989; Amended February 3, 1993)

8-29-217 **Extreme Performance Interior Topcoat:** A topcoat used in interior spaces of aircraft areas requiring fluid, stain or nicotine barrier. (Adopted November 1, 1989)

8-29-218 **Fire Insulation Coating:** A coating used to provide a layer of insulation in the event of an aircraft or engine fire. (Adopted November 1, 1989)

8-29-219 **High-Temperature Coating:** A coating that, during normal use, must withstand temperatures in excess of 350oF. (Adopted November 1, 1989)

8-29-220 **High-Volume, Low-Pressure (HVLP) Spray:** Equipment used to apply coating by means of a gun that operates between 0.1 and 10 psig air atomizing pressure.
(Adopted November 1, 1989; Amended February 3, 1993)

8-29-221 **Sealant:** A coating applied for the purpose of filling voids and providing a barrier against penetration of water, fuel or other fluids or vapors.
(Adopted November 1, 1989)

8-29-222 **Self-priming Topcoat:** A coating applied directly to the aerospace component that is not subsequently overcoated. (Adopted November 1, 1989)

8-29-223 **Transfer Efficiency:** The ratio of the amount of coating solids adhering to an object being coated to the total amount of coating solids used in the application process, expressed as a percentage. (Adopted November 1, 1989)

8-29-224 **Volatile Organic Compound:** Any organic compound (excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate) which would be emitted during use, application, curing or drying of a solvent, surface coating, or stripper.

224.1 For purposes of calculating VOC content of a coating, any water or any of the following non-precursor organic compounds shall not be considered to be part of the coating:

methylene chloride
1,1,1 trichloroethane
triclorotrifluoroethane (CFC-113)
trichlorofluoromethane (CFC-11)
dichlorodifluoromethane (CFC-12)
dichlorotetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC-115)
acetone
parachlorobenzotrifluoride (PCBTF)
cyclic, branched or linear completely methylated siloxanes (VMS)

224.2 For purposes of calculating the VOC content of a stripper, methylene chloride and water shall not be considered a part of the VOC content of the stripper.
(Adopted November 1, 1989; Amended February 3, 1993, December 20, 1995)

8-29-225 **Solid Film Lubricant:** A very thin coating consisting of an organic binder system containing as its chief pigment material one or more of molybdenum disulfide, graphite, polytetrafluoroethylene (PTFE) or other solids that act as a dry lubricant between faying surfaces. (Adopted November 1, 1989; February 3, 1993)

8-29-226 **Sealant Bonding Primer:** A coating applied in a very thin film to an aerospace component for the purpose of providing a primer for a subsequent coat of silicone sealant. (Adopted November 1, 1989)

8-29-227 **Structural Adhesive:** A coating which is applied for the purpose of bonding structural components together. (Adopted November 1, 1989)

8-29-228 **Satellite:** A device intended to orbit the earth above the earth's atmosphere. (Adopted November 1, 1989)

8-29-229 **Detailing Gun:** Small air-spray equipment, including air brushes, that operate at no greater than 5 cfm air flow and no greater than 50 psig air pressure. (Adopted February 3, 1993)

8-29-230 **Approved Emission Control System:** A system for reducing emissions to the atmosphere, consisting of an abatement and a collection system, which achieves the abatement efficiency specified in the applicable standards at all times during the operation and meets the requirements of Regulation 2, Rule 1. (Adopted February 3, 1993)

8-29-231 **Textured Finish Coat:** Any non-smooth, patterned surface that is intentionally produced and applied as a final coat by spraying drops of coating over a previously applied base coating. (Adopted February 3, 1993)

8-29-232 **Mold Release Coating:** A temporary protective coating with a solids content of less than 120 grams solids per liter (1 pound solids per gallon) that reduces or prevents adhesion between the mold surface and the surface being molded. (Adopted February 3, 1993)

8-29-233 **Key System Operating Parameter:** An emission control system operating parameter, such as temperature, flow rate or pressure, that ensures operation of the abatement equipment within manufacturer specifications and compliance with the standards in Sections 8-29-302, 306.1, and 310. (Adopted June 1, 1994)

8-29-300 STANDARDS

8-29-301 **Deleted November 1, 1989**

8-29-302 **Coating Limitations:** A person shall not apply to aerospace components any coating with a VOC content in excess of the following limits, expressed as grams VOC per liter (lbs/gal) of coating as applied, excluding water, unless emissions to the atmosphere are controlled to an equivalent level by air pollution abatement equipment with an abatement device efficiency of at least 85 percent that meets the requirements of Regulation 2, Rule 1.

302.1	Primer	350 (2.9)
302.2	Adhesive bonding primer	850 (7.1)
302.3	Interior Topcoat	340 (2.8)
302.4	Electric or Radiation Effect Coating	800 (6.7)
302.5	Extreme Performance Interior Topcoat	420 (3.5)
302.6	Fire Insulation Coating	600 (5.0)
302.7	Fuel Tank Coating	720 (6.0)
302.8	High-Temperature Coating	720 (6.0)

302.9	Sealant	600 (5.0)
302.10	Self-priming Topcoat	420 (3.5)
302.11	Topcoat	420 (3.5)
302.12	Pretreatment Wash Primer	420 (3.5)
302.13	Sealant Bonding Primer	720 (6.0)
302.14	Temporary Protective Coating	250 (2.1)

(Amended November 1, 1989; February 3, 1993)

8-29-303 **Deleted November 1, 1989**

8-29-304 **Solvent Evaporative Loss Minimization:** Any person using organic solvent for surface preparation and cleanup or mixing, using or disposing of coating or stripper containing organic solvent:

304.1 Shall use closed containers for the storage or disposal of cloth or paper used for solvent surface preparation and cleanup.

304.2 Shall not use organic compounds for the cleanup of spray equipment including paint lines unless equipment for collecting the cleaning compounds and minimizing their evaporation to the atmosphere is used.

304.3 Shall close containers of stripper subject to this Rule, coating, catalyst, thinner, or solvent when not in use.

(Amended November 1, 1989; February 3, 1993)

8-29-305 **Stripper Limitations:** A person shall not use a stripper unless it complies with one or both of the following:

305.1 The stripper contains less than 400 grams/liter (3.3 lbs/gal) of precursor organic compounds.

305.2 The stripper has a true vapor pressure of less than 10 mmHg (0.19 psia) at actual usage temperature. (Amended December 7, 1983)

8-29-306 **Maskant for Chemical Processing Limitations:** A person shall not apply any maskant for chemical processing to aerospace components unless:

306.1 The VOC emissions from coating operations are reduced by 85 percent, or

306.2 The coating contains less than 600 grams of VOC per liter of coating excluding water, as applied.(Amended December 4, 1985, November 1, 1989)

8-29-307 **Deleted November 1, 1989**

8-29-308 **Prohibition of Specification:** No person shall require for use or specify the application of a coating subject to this Rule if such use or application results in a violation of any of the provisions of this Rule. The prohibition of this Section shall apply to all written or oral contracts under the terms of which any coating is to be applied to any aerospace component at any physical location within the District.

(Adopted November 1, 1989)

8-29-309 **Compliance Statement Requirement:** The manufacturer of coatings subject to this Rule shall provide on the coating container or as an accompanying data sheet a designation of VOC (as defined in Section 8-29-224), expressed in grams per liter or pounds per gallon of coating. Effective September 1, 1993, the designation shall include the VOC content of the coating as supplied and at the maximum recommended thinning ratio to maintain compliance with the VOC limits of this Rule.

(Adopted November 1, 1989; Amended February 3, 1993)

8-29-310 **Spray Application Equipment Limitations:** Effective July 1, 1994, a person who uses spray application equipment to apply coatings to aerospace components within the District shall use one or more of the following high transfer efficiency application methods, unless emissions to the atmosphere are controlled by an approved emission control system with an overall abatement efficiency of at least 85%.

310.1 High-Volume, Low-Pressure (HVLP) Spray, operated in accordance with manufacturer's recommendations, or

310.2 Electrostatic Spray, operated in accordance with manufacturer's recommendations, or

310.3 Detailing Gun, or

310.4 Any other coating spray application which has been demonstrated to the satisfaction of the APCO to achieve an equivalent transfer efficiency compared to the spray application methods listed in Subsections 310.1 through 310.3. Prior written approval from the APCO shall be obtained for each alternative method used. (Adopted February 3, 1993)

8-29-400 ADMINISTRATIVE REQUIREMENTS

8-29-401 Deleted November 1, 1989

8-29-402 **Low Usage Coating Petition:** Any person seeking to satisfy the requirements of Section 8-29-112 shall comply with the following requirements:

402.1 The user or specifier shall notify the APCO in writing of coatings to be qualified pursuant to this exemption.

402.2 Such notification shall be repeated on an annual basis.

402.3 The notification shall contain volumes and maximum VOC levels of coatings to be used.

402.4 Records must be maintained as in Section 8-19-501.

(Adopted November 1, 1989; Amended June 1, 1994)

8-29-403 **Methylene Chloride Reduction Plan:** By January 1, 1995, any person using stripper subject to this Rule shall submit a methylene chloride reduction plan. The plan shall include the following:

403.1 Methylene chloride emissions inventory by source

403.2 Description of reduction measures to be implemented

403.3 Implementation schedule for the reduction measures

403.4 Anticipated emission reductions and projected costs for each reduction measure (Adopted February 3, 1993)

8-29-500 MONITORING AND RECORDS

8-29-501 **Records:** Any person subject to Sections 8-29-302, 305 and/or 306 shall:

501.1 Maintain current data necessary to evaluate compliance, including the following information as applicable:

a. coating stripper, catalyst, and reducer used

b. VOC content of coating and stripper as applied

501.2 Record coating usage on a weekly basis including the following information, as applicable, unless otherwise specified in permit conditions imposed per Regulation 2-1-403:

a. coating and mix ratio of components in the coating used as applied

b. quantity of each coating applied

501.3 Record on a daily basis coating usage and key system operating parameters when air pollution abatement equipment is used to comply with the requirements of Sections 302, 306, or 310.

501.4 Record cleanup solvent usage on a monthly basis the type and amount of solvent used for cleanup and surface preparation, unless otherwise specified in permit conditions imposed per Regulation 2-1-403.

501.5 Records on a monthly basis the amount of stripper used, unless otherwise specified in permit conditions imposed per Regulation 2-1-403. A person using a tank-type stripper shall maintain records on a monthly basis showing the amount of stripper added to each tank.

501.6 Records shall be retained and available for inspection by the APCO for the previous 24-month period

501.7 The requirements of Section 8-29-501.2, 501.4 and 501.5 shall not apply to any person who complies with an alternate recordkeeping plan that provides for an enforceable daily record which meets the following requirements:

a. The APCO must be petitioned in writing that complying with Sections 8-29-501.2, 501.4 and 501.5 would constitute an undue burden.

b. A list of coatings and solvents subject to the plan.

c. A description of the calculation methodology, and estimated annual usage for coatings and solvent.

d. Effective August 1, 1994 and annually thereafter, any facility operating under this provision must submit an update to the plan that identifies any changes in coating and solvent usage, and the annual usage for the preceding year.

e. A violation of Sections 8-29-302, 305 or 306 within the reporting period, as established by the plan, shall be considered a violation for each day of the reporting period.

(Adopted 11/1/89; Amended February 3, 1993; October 6, 1993; June 1, 1994)

8-29-600 MANUAL OF PROCEDURES

8-29-601 **Analysis of Coating Samples:** Samples of volatile organic compounds as specified in Sections 8-29-302 and 306 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 21 or 22.

(Amended November 1, 1989; February 3, 1993)

8-29-602 **Determination of Emissions:** Emissions of volatile organic compounds as specified in Section 8-29-302, 306, and 310 shall be measured as prescribed by any of the following methods : 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. When either EPA Method 25 or 25A is used control device equivalency shall be determined as prescribed in 55 FR 26865 (June 29, 1990). A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standard of the rule.

(Amended November 1, 1989; February 3, 1993; June 1, 1994)

8-29-603 **Analysis of Stripper Samples:** Samples of volatile organic compounds of stripper as specified in Section 8-29-305 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 31. (Adopted November 1, 1989)

8-29-604 **Determination of Acid Content:** Measurement of acid content as specified in Section 8-29-208 shall be determined in accordance with ASTM Method D-1613-85.

(Adopted February 3, 1993)

8-29-605 **Analysis of Mold Release Coating Samples:** Samples of mold release coatings containing volatile organic compounds as specified in Section 8-29-302 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 31.

(Adopted February 3, 1993)

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REGULATION 8
ORGANIC COMPOUNDS
RULE 30
SEMICONDUCTOR WAFER FABRICATION OPERATIONS

(Adopted July 6, 1983)

8-30-100 GENERAL

8-30-101 Description: The purpose of this Rule is to limit the emissions of volatile organic compounds (VOC) from semiconductor wafer fabrication operations. For the purpose of this Rule, semiconductor wafer fabrication operations are limited to the manufacture of semiconductor and other related integrated circuits. Any operation which uses VOC during semiconductor wafer fabrication, but which is exempt from the provisions of this rule, shall be subject to the provisions of Regulation 8, Rule 4, if not already subject to another rule of Regulation 8. (Amended October 7, 1998)

8-30-110 Exemption, Small Semiconductor Operation: The provisions of Section 8-30-302 shall not apply to any facility whose total combined net consumption of solvent-based photoresist and solvent-based photoresist developer is less than 24 gallons per month on a facility wide basis and provided the requirements of Section 8-30-402 and Section 8-30-502 are met. The volume of non-VOC materials, as defined in this rule, may be excluded when determining consumption.
(Amended November 23, 1988; October 7, 1998)

8-30-111 Exemption, Solvent Cleaning Devices: The provisions of Section 8-30-304, 305 and 306 shall not apply to any solvent cleaning device which does not process semiconductor wafers or wafer processing tools or with a capacity greater than 10 gallons. Such devices are subject to Regulation 8, Rule 16, Solvent Cleaning Operations. (Adopted November 23, 1988; Amended October 7, 1998)

8-30-112 Exemption, Compounds with Low Volatility: All compounds with an initial boiling point greater than 120^{0}C (248^{0}F) and where the initial boiling point exceeds the actual operating temperature by at least 100^{0}C (180^{0}F) are exempt from the requirements of Sections 8-30-304.1, 304.5, 305 and 306.
(Adopted November 23, 1988; Amended October 7, 1998)

8-30-113 Exemption, Compounds with Low VOC Content: Photoresist developers, strippers and cleaning solvents containing less than 10% VOC by weight if unheated, or less than 2.5% VOC by weight if heated, are exempt from the requirements of Sections 8-30-304, 305, 306 and 501. (Adopted October 7, 1998)

8-30-200 DEFINITIONS

8-30-201 Freeboard Height: The distance from the top of the solvent or solvent drain to the top of the sink.

8-30-202 Freeboard Ratio: The freeboard height divided by the smaller of the length or width of the sink or reservoir.

8-30-203 Deleted October 7, 1998

8-30-204 Deleted October 7, 1998

8-30-205 Deleted October 7, 1998

8-30-206 Deleted October 7, 1998

8-30-207 Photoresist Line: Equipment used to apply, cure and develop photoresist or to apply and cure other wafer coatings, excluding stripping of photoresist or other coatings. (Amended October 7, 1998)

8-30-208 Deleted October 7, 1998

8-30-209 Deleted October 7, 1998

8-30-210 Semiconductor Wafer Fabrication: Any operation performed in order to manufacture semiconductor or related solid state devices, such as semiconductor diodes and stacks, and including rectifiers, integrated microcircuits, transistors, solar cells, and light sensing and emitting devices. Semiconductor wafer fabrication

excludes crystal growth and blank wafer production, circuit separation, assembly and encapsulation. (Amended March 6, 1985; October 7, 1998)

8-30-211 **Deleted October 7, 1998**

8-30-212 **Liquid Solvent Leak:** A liquid leak of four drops or more per minute. (Adopted November 23, 1988)

8-30-213 **Deleted October 7, 1998**

8-30-214 **Solvent Sink:** A solvent sink is any container for liquids containing VOC into which semiconductor wafers or related tools are submerged or placed to remove contaminants, including water and photoresist. (Adopted October 7, 1998)

8-30-215 **Photoresist:** A light-sensitive resin material which is uniformly applied to semiconductor wafers, then selectively removed in a specific pattern so that the exposed wafer surface may be doped, etched or otherwise processed. (Adopted October 7, 1998)

8-30-216 **Photoresist Developer:** A material which is used to remove applied photoresist from a wafer in a specific surface pattern. (Adopted October 7, 1998)

8-30-217 **Photoresist Stripper:** A material which is used to completely remove photoresist from a wafer surface, typically after the developed photoresist has allowed selective wafer processing. (Adopted October 7, 1998)

8-30-218 **Solvent-Based Photoresist:** A photoresist containing 1% or more VOC by weight. (Adopted October 7, 1998)

8-30-219 **Solvent-Based Photoresist Developer:** A photoresist developer containing 10% or more VOC by weight if unheated, or 2.5% or more VOC by weight if heated. (Adopted October 7, 1998)

8-30-220 **Volatile Organic Compounds (VOC):** For the purpose of this rule, a VOC is any organic compound which would be emitted during semiconductor wafer fabrication operations and related cleaning operations, excluding the following: methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate. (Adopted October 7, 1998)

8-30-221 **Solvent Spray Station:** A solvent cleaning station in which liquid solvent is utilized in the form of a spray. (Adopted October 7, 1998)

8-30-222 **Solvent Vapor Station:** A solvent cleaning station in which solvent is heated above its initial boiling point. (Adopted October 7, 1998)

8-30-223 **Semiconductor Fabrication Area (Fab Area):** A physically identifiable area in a semiconductor manufacturing facility where one or more specific operations in the fabrication of semiconductors or related solid state devices occurs and which is permitted as a single source. (Adopted October 7, 1998)

8-30-224 **Liquid Capacity:** For solvent sinks, liquid capacity is either the maximum liquid holding capacity of the container, or else a lower liquid capacity which is clearly marked on the container with a maximum fill line and which is not exceeded during operation. For solvent spray and solvent vapor stations, liquid capacity is the maximum amount of working solvent which the station may contain, excluding the capacity of fresh solvent reservoirs which contain only unused solvent and the capacity of waste solvent reservoirs which contain only spent solvent which will not be re-used. (Adopted October 7, 1998)

8-30-225 **Wipe Cleaning:** That method of cleaning which utilizes a material such as a rag wetted with a solvent, coupled with a physical rubbing process to remove contaminants from surfaces. (Adopted October 7, 1998)

8-30-226 **Sealed Enclosure:** A tool designed in such a way that no openings exist during operation through which VOC may escape from the tool. All openings, including those for loading, unloading, and inspection, shall be provided with gasketed covers. (Adopted October 7, 1998)

8-30-227 **Decontamination Event:** The cleaning of a semiconductor fab area for initial startup (including semiconductor product changes), after renovation, or after an emergency which has resulted in contamination of the fab area. Routine cleaning does not constitute a decontamination event. (Adopted October 7, 1998)

8-30-300 STANDARDS

8-30-301 Deleted June 15, 1994

8-30-302 Photoresist Operations Using Solvent-Based Developer: If solvent-based developer is used to process a photoresist within a specific fab area, then all exhaust gases containing VOC from both the solvent-based photoresist application and solvent-based development operations in that fab area shall be vented to an approved emission control device which captures and abates at least 90% (by weight) of VOC evaporated at the application and development operations. This requirement applies to developer applied by any method other than by immersion in a solvent sink.

(Amended November 23, 1988; October 7, 1998)

8-30-303 Deleted June 15, 1994

8-30-304 Solvent Sink Requirements: A person shall not operate a solvent sink at a semiconductor wafer fabrication facility unless the following requirements are met:

304.1 All solvent sinks containing VOC shall be provided with a cover unless the sink is abated by an approved emission control device as described in subsection 304.5. These covers must remain closed unless production, sampling, maintenance, loading or unloading procedures require operator access.

304.2 The capacity of all solvent sinks shall be clearly labeled on the sink.

304.3 Materials containing VOC, including waste solvents, shall not be stored or disposed of in a manner that will allow evaporation into the atmosphere.

304.4 Liquid solvent leaks shall be repaired immediately or the equipment shall be shut down.

304.5 All unheated solvent sinks containing VOC with a vapor pressure higher than 30 mm Hg at 20 degrees C AND all heated solvent sinks shall have a freeboard ratio greater than or equal to 0.75, unless one of the following requirements is satisfied. All sinks which are subject to a freeboard ratio requirement shall be clearly marked to indicate the liquid level corresponding to the minimum allowed freeboard ratio and this level shall not be exceeded.

304.5.1 The sink capacity does not exceed 1 liter, or;

304.5.2 The sink is abated by an approved emission control device which captures and abates at least 90% (by weight) of VOC evaporated at the sink.

(Adopted November 23, 1988; Amended October 7, 1998)

8-30-305 Solvent Spray Station Requirements: A person shall not operate a solvent spray station at a semiconductor wafer fabrication facility unless the following requirements are met:

305.1 The station shall operate as a sealed enclosure unless sampling, maintenance, loading or unloading procedures require operator access. This requirement shall not apply to spray stations abated by an approved emission control device which captures and abates at least 90% (by weight) of VOC emitted from the station.

305.2 Liquid solvent leaks shall be repaired immediately or the equipment shall be shut down.

305.3 The station shall not have VOC emissions which exceed 250 lb/month per station, as calculated in accordance with Section 8-30-504 unless the station is abated by an approved emission control device which captures and abates at least 90% (by weight) of VOC emitted from the station.

(Adopted October 7, 1998)

8-30-306 Solvent Vapor Station Requirements: A person shall not operate a solvent vapor station at a semiconductor wafer fabrication facility unless the following requirements are met:

306.1 The station shall operate as a sealed enclosure whenever the station contains solvent unless sampling, maintenance, loading or unloading procedures require operator access. This requirement shall not apply to solvent vapor stations abated by an approved emission control device which captures and abates at least 90% (by weight) of VOC emitted from the station.

306.2 Liquid solvent leaks shall be repaired immediately or the equipment shall be shut down.

306.3 The station shall not have VOC emissions which exceed 250 lb/month per station, as calculated in accordance with Section 8-30-504 unless the station is abated by an approved emission control device which captures and abates at least 90% (by weight) of VOC emitted from the station.

(Adopted October 7, 1998)

8-30-307 **Fab Area Wipe Cleaning:** Effective January 1, 2000, a person shall not perform wipe cleaning of fab area walls, floors or other fab area surfaces, including fabrication tool enclosures, with a solution containing more than 10% VOC by weight. This limit shall not apply to tool mechanisms or to the interiors of tool enclosures or to the interiors of wafer processing chambers. This limit shall also not apply to decontamination events. (Adopted October 7, 1998)

8-30-400 **ADMINISTRATIVE REQUIREMENTS**

8-30-401 **Deleted October 7, 1998**

8-30-402 **Small Semiconductor Operation Petition:** Any person seeking to satisfy the conditions of Section 8-30-110 shall comply with the following requirements:

402.1 A written petition for exemption shall be submitted to the APCO showing the total combined net usage of solvent-based photoresist and solvent-based photoresist developer is less than 24 gallons per month for the facility.

402.2 If the APCO grants written approval, such petition will be repeated on an annual basis. (Adopted November 23, 1988; Amended October 7, 1998)

8-30-403 **Deleted June 15, 1994**

8-30-500 **MONITORING AND RECORDS**

8-30-501 **Annual Reporting:** Any person who uses VOC during semiconductor wafer fabrication, except as exempted in Section 8-30-113, shall report the following on an annual basis, prior to renewal of Permits to Operate:

501.1 Quantity of all chemicals and materials containing VOC used during the previous 12 months. (Amended October 7, 1998)

8-30-502 **Records:** Any person seeking to satisfy the conditions of Section 8-30-110 shall comply with the following requirements:

502.1 A monthly record shall be kept showing the facility wide combined net usage of solvent-based photoresist and solvent-based photoresist developer.

502.2 Such records shall be maintained and be available for inspection by the APCO for the previous 24 month period.

(Adopted November 23, 1988; Amended October 7, 1998)

8-30-503 **Source Tests:** Any person who operates an approved emission control device subject to Sections 8-30-302, 304, 305 or 306 shall conduct an initial source test of the abatement device to demonstrate compliance. Results of the tests shall be submitted within 90 days after start up of affected equipment. The APCO shall be contacted in writing no less than 15 days prior to testing.

(Adopted November 23, 1988; Amended October 7, 1998)

8-30-504 **Solvent Spray Station and Vapor Station Emissions:** Any person seeking to satisfy Sections 8-30-305.3 or 306.3 shall maintain monthly records of net solvent use at each station. However, if more than one solvent spray station or vapor station is permitted as part of a semiconductor fabrication area (fab area), then combined records may be maintained for all stations in the fab area. However, separate records shall be maintained for each class of solvent station (solvent sink, spray station or vapor station). Compliance with the 250 lb/month limit shall be evaluated for each calendar month for each station, but may be averaged for all stations of a single class which are permitted in a single fab area. (Adopted October 7, 1998)

8-30-600 MANUAL OF PROCEDURES

8-30-601 Determination of Abatement Efficiency: Abatement efficiency of VOC as specified in Section 8-30-304.5, 305.3 and 306.3 shall be measured as prescribed by any of the following methods: 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. A source shall be considered in violation if the VOC emissions measured by any of the test methods exceed the standards of this rule.

(Adopted November 23, 1988; Amended June 15, 1994; October 7, 1998)

8-30-602 Determination of VOC Content: Samples of materials containing VOC shall be analyzed as prescribed in BAAQMD Manual of Procedures, Volume III, Method 22 or Method 31, or in accordance with another procedure approved by the APCO.

(Adopted October 7, 1998)

REGULATION 8
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REGULATION 8
ORGANIC COMPOUNDS
RULE 31
SURFACE PREPARATION AND COATING OF PLASTIC PARTS AND PRODUCTS

(Adopted September 7, 1983)

8-31-100 GENERAL

8-31-101 Description: The purpose of this Rule is to limit the emission of volatile organic compounds from the surface preparation and coating of plastic parts and products, including polyester resin (fiberglass) products.

(Amended 6/7/89; 10/16/02)

8-31-110 Exemption, Adhesives: The requirements of this Rule shall not apply to the application of adhesives. Application of adhesives is subject to Regulation 8, Rule 51.

(Amended 6/7/89; 2/3/93)

8-31-111 Exemption, Low Usage Coatings: The requirements of Sections 8-31-302, 306 and 309 shall not apply to any coating used in volumes less than 75.7 liters (20 gallons) in any one year, and provided the requirements in Section 8-31-403 are satisfied. A person shall be limited to 208.1 liters (55 gallons) total coating per year under this exemption.

(Amended 1/7/87; 4/1/87; 6/7/89; 6/1/94)

8-31-112 Deleted April 1, 1987

8-31-113 Exemption, Aerosol Cans: The provisions of this Rule shall not apply to coating operations employing hand-held aerosol cans. Such coating is subject to the provisions of Regulation 8, Rule 49 or to the California Air Resources Board aerosol coating product regulation found in Title 17 of the California Code of Regulations, beginning at Section 94520.

(Amended 1/7/87; 6/7/89; 6/20/90; 10/16/02)

8-31-114 Exemption, Touch-up: The provisions of this Rule shall not apply to touch-up operations.

(Amended 1/7/87; 6/7/89)

8-31-115 Deleted April 1, 1987

8-31-116 Deleted April 1, 1987

8-31-117 Deleted April 1, 1987

8-31-118 Exemption, Automobile Assembly Coatings: The requirements of this Rule shall not apply to coatings applied to parts in an automobile assembly plant, provided the following conditions are satisfied:

118.1 The parts are coated in a coating line subject to the requirements of Regulation 8, Rule 13.

118.2 The coating of these parts complies with the requirements which apply to other parts or products coated in the same coating line.

(Amended June 7, 1989)

8-31-119 Exemption, Aerospace Assembly Coatings: The requirements of this Rule shall not apply to coatings applied to plastic aerospace components subject to Regulation 8, Rule 29.

(Adopted June 7, 1989)

8-31-120 Exemption, Test Panels: The requirements of this Rule shall not apply to test panels used to evaluate coating performance. Such test panels are subject to Regulation 8, Rule 4.

(Adopted June 7, 1989)

8-31-121 Exemption, Stencil Coatings: The requirements of this Rule shall not apply to coatings that are applied by template in order to add designs, letters and/or numbers to the products.

(Adopted June 7, 1989)

8-31-122 Exemption, Spray Application Equipment: The requirements of Section 8-31-310 shall not apply to the following operations:

122.1 The application of high solids, solvent-borne coatings with a solids content of at least 60% by volume to pre-textured or hair-cell surfaces of plastic parts and products. This exemption only applies to coatings subject to the limits of Section 8-31-302.

122.2 The application of coatings to the inner surface area of pipes which require a spray gun nozzle extension.

122.3 The application of a textured finish coat.

122.4 The application of conductive coatings.

(Adopted February 3, 1993)

8-31-123 **Exemption, Small User:** The spray application equipment limitations of Section 8-21-310 shall not apply to any facility where the total amount of all coatings used to coat plastic parts and products does not exceed 50 gallons/year.

(Adopted February 3, 1993)

8-31-124 **Limited Exemption, Coating Records:** The requirements of subsection 8-31-501.2 shall not apply to individual source operations using less than 75.7 liters (20 gal) of coating in any calendar year, unless otherwise specified in permit conditions pursuant to Regulation 2-1-403. A person shall maintain monthly records of coating usage under this exemption.

(Adopted February 3, 1993)

8-31-125 **Exemption, Printed Circuit Boards:** The requirements of this Rule shall not apply to coatings applied to assembled printed circuit boards. This coating operation is subject to Regulation 8, Rule 4.

(Adopted February 3, 1993)

8-31-126 **Exemption, Translucent Coatings:** The requirements of Section 8-31-302 shall not apply to translucent coatings applied to translucent plastic provided records are maintained as per Section 8-29-501. The application of translucent coating is subject to the requirements of Regulation 8, Rule 4.

(Adopted February 3, 1993)

8-31-127 **Limited Exemption, Specific Surface Preparation and Cleaning Operations:** The surface preparation standards in Section 8-31-321 shall not apply to, (i) the surface preparation of medical devices or precision optics, (ii) surfaces prepared for adhesive bonding of dissimilar substrates, (iii) stripping of cured inks, coatings and adhesives or cleaning of resin, coating, ink and adhesive mixing, molding and application equipment, or (iv) surface preparation associated with research and development operations; performance testing to determine coating, adhesive or ink performance; or testing for quality control or quality assurance purposes.

(Adopted October 16, 2002)

8-31-128 **Limited Exemption, Military Components:** The requirements of Section 8-31-321 shall not apply to the surface preparation of any military component for which a contract exists that specifies the use of an organic solvent that does not comply with the standards in Section 8-19-321, provided that contract has been entered into prior to December 1, 2005.

(Adopted October 16, 2002)

8-31-200 **DEFINITIONS**

8-31-201 **Camouflage Coating:** A coating used on military equipment to conceal such equipment from detection.

8-31-202 **Conductive Coating:** A coating used on electrical or electronic equipment to provide shielding against electromagnetic interference, radio frequency interference or static discharge.

8-31-203 **Flexible Part or Product:** A part or product designed to withstand significant deformation without apparent damage, such as flexible automobile bumpers.

8-31-204 **Metallic Topcoat:** A topcoat containing more than 5 g/l (0.42 lb/gal) of metal particles, as identified on a technical or material safety data sheet, where such metal particles are visible in the dried film.

(Amended 1/7/87; 6/1/94)

8-31-205 **Volatile Organic Compound:** Any organic compound (excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate) which would be emitted during use, application, curing or drying of a solvent or surface coating.

205.1 For purposes of calculating VOC content of a coating, any water or the following non-precursor organic compounds:

acetone
methyl acetate
parachlorobenzotrifluoride (PCBTF)
cyclic, branched or linear, completely methylated siloxanes (VMS)

shall not be considered to be part of the coating.

206.2 For the purposes of calculating the VOC content of a surface preparation or cleaning solvent, any water or the non-precursor organic compounds listed in subsection 8-31-206.1, above, shall be considered part of the volume of solvent but shall not be considered part of the VOC content of the solvent.

(Amended 1/7/87; 6/7/89, 12/20/95; 10/16/02)

8-31-206 **Extreme Performance Coating:** Any coating which during intended use is exposed to one or more of the following conditions:

206.1 Repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleaners or abrasive scouring agents.

206.2 Repeated exposure to temperatures in excess of 121°C (250°F).

206.3 Chronic exposure to corrosive, caustic or acidic agents, chemicals, chemical fumes, chemical mixtures or solution.

(Amended 1/7/87; 6/1/94)

8-31-207 **Deleted June 7, 1989**

8-31-208 **Touch-up:** That portion of the surface preparation or coating operation which is incidental to the main coating process but necessary to cover minor imperfections or mechanical damage incurred prior to intended use.

(Amended 1/7/87; 10/16/02)

8-31-209 **Transfer Efficiency:** The ratio of the amount of coating solids adhering to the object being coated to the total amount of coating solids used in the application process, expressed as a percentage.

8-31-210 **Deleted January 7, 1987**

8-31-211 **High Gloss Coating:** Any coating which achieves at least 85% reflectance on a 60o meter when tested by ASTM Method D-523-1989.

(Adopted June 7, 1989)

8-31-212 **Adhesive:** Any coating applied for the purpose of bonding surfaces together.

(Adopted June 7, 1989)

8-31-213 **Electrostatic Spray:** Equipment used to apply coating by charging atomized particles that are deposited by electrostatic attraction.

(Adopted February 3, 1993)

8-31-214 **High Volume, Low Pressure (HVLP) Spray:** Equipment used to apply coating by means of a gun which is designed to be operated and which is operated between 0.1 and 10.0 psig air atomizing pressure measured dynamically at the center of the air cap and at the air horns.

(Adopted 2/3/93; 10/16/02)

8-31-215 **Pre-Textured or Hair-Cell Surface:** The rough or uneven surface impressed upon a manufactured plastic part during molding processes that exists before applying a semi-transparent or colored surface coating.

(Adopted February 3, 1993)

8-31-216 **Detailing Gun:** Small air spray equipment, including air brushes, that operate at no greater than 5 cfm air flow and no greater than 50 psig air pressure.

(Adopted February 3, 1993)

8-31-217 **Approved Emission Control System:** A system for reducing emissions to the atmosphere, consisting of an abatement device and a collection system, which achieves the abatement efficiency specified in the applicable standards at all times during the operation and meets the requirements of Regulation 2, Rule 1.

(Adopted February 3, 1993)

8-31-218 **Translucent Coating:** A clear or colored coating which is formulated to allow light transmission.

(Adopted February 3, 1993)

8-31-219 **Textured Finish Coat:** Any non-smooth, patterned surface that is intentionally produced and applied as a final coat by spraying drops of coating over a previously applied base coating.

(Adopted February 3, 1993)

8-31-220 **Optical Coating:** Any coating applied to ophthalmic lenses to provide a scratch resistant, protective film.

(Adopted February 3, 1993)

8-31-221 **Mold Release Coating:** A temporary protective coating with a solids content of less than 120 grams solids per liter (1 pound solids per gallon) that reduces or prevents adhesion between the mold surface and the surface being molded.

(Adopted February 3, 1993)

8-31-222 **Key System Operating Parameter**: An emission control system operating parameter, such as temperature, flow rate or pressure, that ensures operation of the abatement equipment within manufacturer specifications and compliance with the standards in Sections 8-31-302, 306, 309, and 310.

(Adopted June 1, 1994)

8-31-223 **Medical Device:** An instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent or other similar article, including any component or accessory that is (i) intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of diseases, or (ii) is intended to affect the structure or any function of the body, or (iii) is defined in the National Formulary or the United States Pharmacopoeia or any supplement to it.

(Adopted October 16, 2002)

8-31-224 **Precision Optics:** The optical elements used in electro-optical devices that are designed to sense, detect, or transmit light energy, including specific wavelengths of light energy and changes of light energy levels.

(Adopted October 16, 2002)

8-31-225 **Surface Preparation:** The cleaning of plastic parts and products prior to coating, further treatment, sale, or intended use. Surface preparation of plastic parts subject to and in compliance with Regulation 8, Rule 16: Solvent Cleaning Operations, is not subject to the surface preparation standards in this Rule.

(Adopted October 16, 2002)

8-31-300 **STANDARDS**

8-31-301 **Deleted June 7, 1989**

8-31-302 **Limit:** A person shall not apply to any plastic part or product any coating with a VOC content in excess of 340 grams of VOC per liter of coating applied (2.8 lb/gal), excluding water, unless emissions to the atmosphere are controlled to an equivalent level by use of an air pollution abatement device with an abatement device efficiency of at least 85% that meets the requirements of Regulation 2, Rule 1.

(Amended 1/7/87; 4/1/87; 6/7/89; 2/3/93)

8-31-303 **Deleted February 3, 1993**

8-31-304 **Deleted June 7, 1989**

8-31-305 **Deleted June 7, 1989**

8-31-306 **Flexible Coatings:** A person shall not apply to any flexible part or product any coating which has a VOC content in excess of the following limits expressed as grams of VOC per liter (lb VOC per gal) of coating applied, excluding water, unless emissions to the atmosphere are controlled to an equivalent level by use of an air pollution abatement device with an abatement device efficiency of at least 85% that meets the requirements of Regulation 2, Rule 1.

306.1	Flexible primer	490 grams/liter (4.1 lb/gal)
306.2	Color topcoat	450 grams/liter (3.8 lb/gal)
306.3	Base coat/clear coat (combined system)	540 grams/liter (4.5 lb/gal)

(Amended 1/7/87; 4/1/87; 6/7/89; 2/3/93)

8-31-307 **Prohibition of Specification:** No person shall require for use or specify the application of a coating or solvent subject to this Rule if such use or application results in a violation of any of the provisions of this Rule. The prohibition of this Section shall apply to all written or oral contracts under the terms of which any coating or solvent is to be applied to any plastic part or product at any physical location within the District.

(Adopted 1/7/87, Amended 6/7/89; 10/16/02)

8-31-308 **Compliance Statement Requirement:** The manufacturer of coatings and solvents subject to this Rule shall provide on the coating container or as an accompanying data sheet a designation of VOC (as defined in Section 8-31-205), expressed in grams per liter or pounds per gallon of coating. Effective September 1, 1993, the designation shall include the VOC content of the coating as supplied and at the maximum recommended thinning ratio to maintain compliance with the VOC limits of this Rule.

(Adopted 1/7/87; Amended 7/7/89; 2/3/93; 10/16/02)

8-31-309 **Specialty Coating Limitations:** A person shall not apply to any plastic part or product any specialty coating with a VOC content in excess of the following limits, expressed as grams of VOC per liter (lb VOC per gal) of coating applied, excluding water, unless emissions to the atmosphere are controlled to an equivalent level by use of an air pollution abatement device with an abatement device efficiency of at least 85% that meets the requirements of Regulation 2, Rule 1.

			Effective January 1, 1994
309.1	Camouflage	420 (3.5)	
309.2	Conductive	700 (5.8)	325 (2.7)
309.3	Metallic Topcoat	420 (3.5)	
309.4	Extreme Performance	750 (6.2)	
309.5	High Gloss	420 (3.5)	
309.6	Optical	800 (6.7)	

Any person seeking to use a coating subject to subsection 8-31-309.4 shall also comply with the following provisions:

a. Usage is limited to 3785 liters (1000 gal) in any calendar year.

b. Requirements of Section 8-31-401 must be satisfied.

(Adopted 4/1/87; Amended 6/7/89; 2/3/93)

8-31-310 **Spray Application Equipment Limitations:** Effective July 1, 1994, a person who uses spray application equipment to apply coatings to plastic parts and products within the District shall use one or more of the following application methods, unless emissions are controlled by an approved emission control system with an overall abatement efficiency of at least 85%:

310.1 High Volume, Low Pressure (HVLP) spray, operated in accordance with the manufacturer's recommendations, or

310.2 Electrostatic Spray, operated in accordance with the manufacturer's recommendations, or

310.3 Detailing Gun, or

310.4 Any other coating spray application, which has been demonstrated to the satisfaction of the APCO to achieve an equivalent transfer efficiency compared to the spray application methods listed in subsections 310.1 through 310.3. Prior written approval from the APCO shall be obtained for each alternative method used.

(Adopted February 3, 1993)

8-31-320 **Solvent Evaporative Loss Minimization:** Unless emissions to the atmosphere are controlled by an approved emission control system with an overall abatement efficiency of at least 85%, any person using organic solvent for surface preparation and cleanup or mixing, using or disposing of coating, catalyst or thinner containing organic solvent:

320.1 Shall use closed containers for the storage or disposal of cloth or paper used for solvent surface preparation and cleanup.

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REGULATION 8
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(Adopted September 21, 1983)

8-32-100 GENERAL

8-32-101 Description: The purpose of this Rule is to limit emissions of volatile organic compounds from the application of coatings to, and surface preparation of, any wood products, including furniture, cabinets and custom architectural millwork. This Rule shall not apply to residential noncommercial operations. (Amended April 17, 1991)

8-32-110 Deleted October 6, 1993

8-32-111 Exemption, Small Coating Operations: The provisions of this Rule shall not apply to facilities that use a total of less than 20 gallons of coating per year.

(Adopted April 17, 1991)

8-32-112 Exemption, Specific Operations: The provisions of this Rule shall not apply to the following specific coating operations:

112.1 Coatings and adhesives applied to Flatwood Paneling and Wood Flat Stock subject to the provisions of Regulation 8, Rule 23

112.2 Coating applied to stationary structures and their appurtenances subject to the provisions of Regulation 8, Rule 3 or Rule 48

112.3 Coating applied from aerosol cans subject to the provisions of Regulation 8, Rule 49

112.4 Adhesive coating subject to the provisions of Regulation 8, Rule 51.

(Adopted April 17, 1991; Amended November 18, 1992)

8-32-113 Exemption, Refinishing, Replacement and Custom Replica Furniture Operations: The provisions of Sections 8-32-302, 303, 304, 305 and 501 shall not apply to any refinishing operation necessary for preservation, to return the wood product or furniture to original condition, to replace missing furniture to produce a matching set, or to produce custom replica furniture.

(Adopted April 17, 1991; Amended June 19, 1996)

8-32-114 Exemption, Stencil Coatings: The provisions of this Rule shall not apply to the application of coatings by template in order to add designs, letters or numbers to products. The application of stencil coatings is subject to the provisions of Regulation 8, Rule 4. (Adopted April 17, 1991)

8-32-115 Exemption, Specific Finishes: The provisions of Sections 8-32-301, 302, 303, and 304 shall not apply to coatings used to produce the following finishes, provided records are maintained as specified in Section 8-32-501:

115.1 Crackle lacquers

115.2 Leaf finishes

115.3 Faux finishes

115.4 Imitation wood grain

The application of coatings used to produce these specific finishes is subject to the provisions of Regulation 8, Rule 4. (Adopted April 17,1991; Amended June 19, 1996)

8-32-116 Exemption, Musical Instruments: The provisions of this Rule shall not apply to the application of coatings to musical instruments. (Adopted April 17, 1991)

8-32-117 Exemption, Polyester Resin Application: The application of polyester resin with a VOC content of less than 120 grams VOC per liter (1.0 pound VOC per gallon) shall be exempt from the spray application equipment limitations of Section 8-32-301.

(Adopted April 17, 1991)

8-32-118 **Exemption, Patternmaking:** The provisions of this Rule shall not apply to the application of coating to wood patterns used as tooling for the foundry industry. The application of such coating is subject to the provisions of Regulation 8, Rule 4.

(Adopted June 19, 1996)

8-32-119 **Limited Exemption, Extreme Environmental Conditions:** Any wood product subject to extreme environmental conditions may be coated pursuant to the limits in Section 8-32-303, provided that the requirements of Section 8-32-403 are satisfied.

(Adopted June 19, 1996)

8-32-120 **Recordkeeping Exemption, Low VOC Facilities:** Any facility subject to this Rule, in which low VOC coatings are exclusively stored and used shall be exempt from subsections 8-32-501.2, 501.4, 502.2, 502.3, and 503. For the purposes of this exemption, low VOC coatings are high solids coatings with a VOC content of no more than 275 grams per liter (2.3 lb/gal), as applied, and low solids coatings with a VOC content of less than 120 grams per liter (1.0 lb/gal), as applied. This exemption shall only apply if the requirements of Section 8-32-405 are satisfied.

(Adopted June 19, 1996)

8-32-200 **DEFINITIONS**

8-32-201 **Deleted April 17, 1991**

8-32-202 **Binders:** Non-volatile polymeric organic materials (resins) which form surface film in coating applications.

8-32-203 **Clear Topcoat:** The final coating which contains binders, but not opaque pigments, and is specifically formulated to form a transparent or translucent solid protective film.

8-32-204 **Deleted April 17, 1991**

8-32-205 **High Solids Stains:** Stains which are formulated to enhance wood grain and change wood color, but not conceal surface grain. For the purpose of this Rule, high solids stains are stains that contain at least 120 grams solids per liter (one pound solids per gallon) of coating. (Amended April 17, 1991, June 19, 1996)

8-32-206 **Pigmented Coatings:** Opaque coatings which contain binders and colored pigments which are formulated to hide the wood surface, either as an undercoat or topcoat.

8-32-207 **Sanding Sealer:** A coating containing binders, which seals the wood prior to application of, and provides a sandable surface for, the subsequent coatings.

(Amended April 17, 1991)

8-32-208 **Low Solids Stains:** Stains, dyes and toners which are formulated to enhance wood grain and change surface color, but not to conceal surface grain, and include sap stain, toner and non-grain raising stains. For the purpose of this Rule, low solids stains are stains that contain less than 120 grams solids per liter (1 pound solids per gallon) of coating. (Amended April 17,1991, June 19, 1996)

8-32-209 **Transfer Efficiency:** The ratio of the weight of coating solids deposited on an object to the total weight of coating solids used in a coating application step, expressed as a percentage. (Amended April 17, 1991)

8-32-210 **Wash Coat:** A coating, containing binders, which penetrates into and seals wood, prevents undesired staining and seals in wood pitch. For the purpose of this Rule, washcoats shall be considered low-solids coatings and shall contain less than 120 grams solids per liter (1 pound solids per gallon) of coating. Wash coats with greater than 120 grams solids per liter (1 pound solids per gallon) of coating shall be considered sanding sealers. (Amended April 17, 1991)

8-32-211 **Wood Furniture:** Those surface coated room furnishings which are subject to Standard Industrial Classification Major Group 25 including tables, chairs, beds, sofas, dressers and standing screens made of solid wood, wood composition or wood material. (Amended April 17, 1991)

8-32-212 **General Wood Products:** For the purpose of this Rule, general wood products are those surface coated objects which are generally subject to Standard Industrial Classification Major Group 24 including cabinets, vanities, shutters, containers,

frames, tools and ladders made of solid wood, wood composition or wood material. Custom cabinetry, including vanities, that are individually produced items designed for a specific space and client are not considered general wood products.

(Adopted April 17, 1991; Amended June 19, 1996)

8-32-213 **Custom Architectural Millwork:** Those in shop finished wood products intended for use as architectural components including panels, doors and trim. Custom architectural millwork is individually produced items designed for a specific space and client. Custom trade show exhibits designed for a specific client shall be considered custom architectural millwork. (Adopted April 17, 1991; Amended June 19, 1996)

8-32-214 **Volatile Organic Compound:** Any organic compound (excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate) which would be emitted during use, application, curing or drying of a solvent or surface coating.

214.1 For purposes of calculating the VOC content of a high solids coating subject to subsections 8-32-302.1, 303.1 and 304.1, any water or the following compounds:

acetone
parachlorobenzotrifluoride (PCBTF)
cyclic, branched or linear, completely methylated siloxanes (VMS)

shall not be considered a part of the coating.

214.2 For purposes of calculating the VOC content of a low solids coating or solvent subject to subsections 8-32-302.2, 303.2 and 304.2, any water shall be considered a part of the coating. The following compounds:

acetone
parachlorobenzotrifluoride (PCBTF)
cyclic, branched or linear, completely methylated siloxanes (VMS)

shall not be considered part of the VOC content of the coating or solvent.

(Adopted April 17, 1991; Amended December 20, 1995, June 19, 1996)

8-32-215 **Airless Spray:** Equipment used to apply coatings by use of fluid pressure without atomizing air, including heated airless spray. (Adopted April 17, 1991)

8-32-216 **Air Assisted Airless Spray:** Equipment used to apply coatings that uses fluid pressure to atomized coating and air pressure between 0.1 and 50 psig to adjust the spray pattern. (Adopted April 17, 1991; Amended July 6, 1994)

8-32-217 **High-Volume, Low-Pressure (HVLP) Spray:** Equipment used to apply coatings by means of a gun which operates between 0.1 and 10 atomizing psig air pressure.

(Adopted April 17, 1991; Amended October 6, 1993)

8-32-218 **Electrostatic Air Spray:** Equipment used to apply coating by charging atomized particles that are deposited by electrostatic attraction. (Adopted April 17, 1991)

8-32-219 **Detailing or Touch-up Guns:** Small air spray equipment, including air brushes, that operate at no greater than 5 cfm air flow and no greater than 50 psig air pressure and are used to coat small products or portions of furniture. (Adopted April 17, 1991)

8-32-220 **Crackle Lacquer:** A clear or pigmented topcoat intended to dry to produce a cracked or crazed appearance. (Adopted April 17, 1991)

8-32-221 **Filler:** A material whose primary function is to fill voids. (Adopted April 17, 1991)

8-32-222 **Leaf Finish:** A finish used in conjunction with metal leaf or foil.

(Adopted April 17, 1991)

8-32-223 **Faux Finish:** A finish intended to simulate a surface other than wood, including stone, sand, slate, marble, metal, metal flake or leather. (Adopted April 17, 1991)

8-32-224 **Imitation Wood Grain:** A hand applied finish that simulates the appearance of a specific natural wood grain. (Adopted April 17, 1991)

8-32-225 **Custom Replica Furniture:** Furniture individually produced for a specific client using methods of construction including materials, joinery and finishes authentic to the period and in keeping with the style of furniture. (Adopted April 17, 1991)

8-32-226 **Key System Operating Parameter**: An air pollution abatement equipment operating parameter, such as temperature, flow rate or pressure, that ensures operation of the

abatement equipment within manufacturer specifications and compliance with the standards in Sections 8-32-302, 303, and 304.

(Adopted June 15, 1994; Amended June 19, 1996)

8-32-227 **Custom or Contract Furniture:** Those pieces of furniture designed and produced to order for a specific client as ordered by that client or a professional architect or designer. (Adopted June 19, 1996)

8-32-228 **Extreme Environmental Conditions:** Any coating which during intended use is exposed to one or more of the following conditions:

228.1 Repeated heavy abrasion, mechanical wear, or abrasive agents,

228.2 Temperature extremes significantly in excess of normal ambient conditions,

228.3 Chronic exposure to corrosive, caustic or acidic chemicals, solutions or agents.

(Adopted June 19, 1996)

8-32-300 STANDARDS

8-32-301 **Spray Application Equipment Limitations:** Any person who utilizes spray application equipment to apply coatings to wood products, furniture and cabinets shall use one or more of the following application methods:

Airless spray
Air assisted airless spray
High Volume Low Pressure (HVLP) spray
Electrostatic air spray
Detailing or Touch-up Guns (Amended April 17, 1991)

8-32-302 **General Wood Product Limits:** A person shall not apply to any wood product, any coating with a VOC content in excess of the following limits; expressed as grams VOC per liter (pounds VOC per gallon) of coating as applied, unless emissions to the atmosphere are controlled to an equivalent level by air pollution abatement equipment with an abatement device efficiency of at least 85 percent that meets the requirements of Regulation 2, Rule 1.

302.1 High Solids Coatings:

	Effective July 1, 1992	Effective July 1, 1995
Clear Topcoat	550 (4.6)	275 (2.3)
Sanding Sealer	550 (4.6)	550 (4.6)
Pigmented Coating	600 (5.0)	275 (2.3)
High Solids Stain	700 (5.8)	700 (5.8)
Filler	500 (4.2)	500 (4.2)

302.2 Low Solids Coatings:

	Effective July 1, 1992	Effective July 1, 1995
Low Solids Stain	480 (4.0)	480 (4.0)
Wash-coat	480 (4.0)	480 (4.0)

(Deleted April 17, 1991; Re-adopted June 19, 1996)

8-32-303 **Furniture, Custom Cabinetry and Custom Architectural Millwork Limits:** A person shall not apply to any furniture, custom cabinet or custom architectural millwork, any coating with a VOC content in excess of the following limits; expressed as grams VOC per liter (pounds VOC per gallon) of coating as applied, unless emissions to the atmosphere are controlled to an equivalent level by air pollution abatement equipment with an abatement device efficiency of at least 85 percent that meets the requirements of Regulation 2, Rule 1.

303.1 High Solids Coatings:

	Effective July 1, 1992	Effective Sept 1, 1996
Clear Topcoat	550 (4.6)	550 (4.6)
Sanding Sealer	550 (4.6)	550 (4.6)
Pigmented Coating	600 (5.0)	550 (4.6)
High Solids Stain	700 (5.8)	700 (5.8)
Filler	500 (4.2)	500 (4.2)

303.2 Low Solids Coatings:

	Effective July 1, 1992	Effective Sept 1, 1996
Low Solids Stain	480 (4.0)	480 (4.0)
Wash-coat	480 (4.0)	480 (4.0)

(Adopted April 17,1991; Amended October 6, 1993, July 6, 1994, June 19, 1996)

8-32-304 **Custom and Contract Furniture Limits:** A person shall not apply to any custom or contract furniture any coating with a VOC content in excess of the following limits; expressed as grams VOC per liter (pounds VOC per gallon) of coating as applied, unless emissions to the atmosphere are controlled to an equivalent level by air pollution abatement equipment with an abatement device efficiency of at least 85 percent that meets the requirements of Regulation 2, Rule 1.

304.1 High Solids Coatings:

	Effective July 1, 1992	Effective July 1, 1997
Clear Topcoat	700 (5.8)	550 (4.6)
Sanding Sealer	700 (5.8)	550 (4.6)
Pigmented Coating	600 (5.0)	550 (4.6)
High Solids Stain	700 (5.8)	700 (5.8)
Filler	500 (4.2)	500 (4.2)

304.2 Low Solids Coatings:

	Effective August 1, 1991	Effective July 1, 1992	Effective July 1, 1997
Low Solids Stain	800 (6.7)	800 (6.7)	480 (4.0)
Wash-coat	800 (6.7)	800 (6.7)	480 (4.0)

(Adopted April 17,1991; Amended October 6, 1993; July 6, 1994, June 19,1996)

8-32-305 **Prohibition of Specification:** No person shall require for use or specify the application of a coating subject to this Rule if such use or application results in a violation of any of the provisions of this Rule. The prohibition of this Section shall apply to all written or oral contracts under the terms of which any coating is to be applied to any wood product, furniture or cabinet at any physical location within the District.

(Adopted April 17,1991)

8-32-306 **Compliance Statement Requirement:** Effective August 1, 1991, the manufacturer of coatings subject to this Rule shall provide on the coating container or as an accompanying specification a designation of VOC content (as defined in Section 8-32-214) expressed in grams per liter or pounds per gallon of coating and expressed as grams VOC per gram solid or pounds VOC per pound solid.

(Adopted April 17, 1991; Amended June 19, 1996)

8-32-307 **Alternate Compliance, Section 8-32-302, 303 and 304:** In lieu of compliance with Section 8-32-302, 303 or 304, and provided a person is in receipt of the written authorization provided for in Section 8-32-404, compliance with the VOC limits may be

achieved by averaging any or all coatings and solvent usage related directly to the coating of wood products. Compliance may be demonstrated by averaging for multiple day periods on a rolling basis for a period of no greater than thirty days.

(Adopted June 19, 1996)

8-32-320 **Solvent Evaporative Loss Minimization:** The requirements of this Section shall apply to any person using organic solvent for surface preparation and cleanup or to any person mixing, using or disposing of coating, adhesive or stripper containing organic solvent.

320.1 A person shall use closed containers for the storage or disposal of cloth or paper used for solvent surface preparation and cleanup.

320.2 A person shall store fresh or spent solvent in closed containers.

320.3 A person shall not use organic compounds for the cleanup of mixing, storage or spray equipment unless equipment for collecting the cleaning compounds and minimizing their evaporation to the atmosphere is used.

320.4 A person shall not leave containers of stripper, coating, adhesive, catalyst or thinner open to the atmosphere when not in use. (Adopted April 17, 1991)

8-32-400 **ADMINISTRATIVE REQUIREMENTS**

8-32-401 **Deleted April 17, 1991**

8-32-402 **Deleted June 19, 1996**

8-32-403 **Extreme Environmental Conditions Petition:** A person seeking an exemption pursuant to Section 8-32-119 shall comply with the following requirements:

403.1 A petition shall be submitted to the APCO containing the following information, as applicable: environmental conditions and coating performance requirements, volume of coating, and maximum VOC level necessary.

403.2 If the APCO grants written approval, such petition shall be repeated on an annual basis.

403.3 If the APCO grants written approval, such approval shall contain VOC and volume limit conditions.

403.4 Records must be maintained as per Section 501. (Adopted June 19, 1996)

8-32-404 **Alternate Compliance Petition And Approval:** Any person electing to comply with Section 8-32-307 shall submit to the APCO information regarding all coatings and solvents to be included in the alternate compliance formula. Such information shall include the VOC content in grams (or pounds) per gram (or pound) coating solid for high solids coatings, the VOC content in grams (or pounds) per liter (or gallon) of coating for low solids coatings and solvents, the expected quantity of each coating or solvent to be used, and a description of the products or coating line for which the approval is sought. The APCO shall evaluate each petition submitted and will respond to each petition that meets the criteria of Section 8-32-307 with written approval. A petitioner is subject to the limits contained in Section 8-32-302, 303 or 304 until receipt of the written approval. Any plan is subject to the following conditions:

404.1 Any emissions reductions credited to this plan must not be the result of emissions reduced due to violation of any District rule, or to achieve compliance with a provision of this rule at the effective date of that provision. Reductions achieved prior to the effective date of any standards in this rule may be used until the effective date.

404.2 Any emissions reductions shall not be used as credit pursuant to Regulation 2, Rule 4 or as contemporaneous offsets pursuant to Regulation 2, Rule 2.

404.3 No emissions reductions shall be credited for organic compounds that are adopted as compounds exempt from the definition of VOC found in Section 8-32-214 if those compounds are present in the coatings or solvents used at the facility prior to the date the compound becomes exempt.

(Adopted June 19, 1996)

8-32-405 **Low VOC Facility Certification:** In order to qualify for the recordkeeping exemption in Section 8-32-120, the owner or operator of a facility shall certify to the APCO that all coatings comply with the provisions of Section 8-32-120. Such certification shall be provided annually, concurrent with permit renewal. (Adopted June 19, 1996)

8-32-500 MONITORING AND RECORDS

8-32-501 **Recordkeeping Requirements:** Any person subject to Section 8-32-302, 303, 304, or 307 shall:

501.1 Maintain a current list of coatings in use which provides all of the data necessary to evaluate compliance, including the following information, as applicable:

a. coating, catalyst or reducer used
b. manufacturer's recommended mix ratio of components
c. VOC content of coating as applied
d. solids content of each

501.2 Record the following information on a daily basis, as applicable:

a. coating and mix ratio of components in the coating used
b. quantity of each coating applied
c. identification of coating category
d. type and amount of solvent used for cleanup and surface preparation

501.3 Record air pollution abatement equipment key operating parameters on a daily basis where such equipment is installed to meet the requirements of Sections 8-32-302, 303, and 304.

501.4 Records shall be retained and available for inspection by the APCO for the previous 24-month period.

(Adopted April 17, 1991; Amended June 15, 1994, June 19, 1996)

8-32-502 **Refinishing, Replacement and Custom Replica Furniture Operations Recordkeeping Requirements:** Any person refinishing wood products or furniture, replacing missing furniture or producing custom replica furniture shall:

502.1 Maintain a current list of coatings in use which provides the following information, as applicable:

a. coating, catalyst or reducer used
b. manufacturer's recommended mix ratio of components
c. VOC content of coating or reducer

502.2 Record on a monthly basis the following information, as applicable:

a. amount of coating, catalyst and reducer used
b. type and amount of solvent used for cleanup and surface preparation
c. type and amount of stripper used

502.3 Records shall be retained and available for inspection by the APCO for the previous 24-month period. (Adopted April 17, 1991; Amended June 15,1994)

8-32-503 **Custom Architectural Millwork and Cabinetry Recordkeeping Requirements:** In addition to the requirements of Section 8-32-501, any person producing custom architectural millwork and cabinetry shall maintain and make available for inspection by the APCO job orders, shop drawings or blueprints, or designer or architectural drawings as necessary to establish the custom nature of the work.

(Adopted April 17,1991; Amended June 19, 1996)

8-32-600 MANUAL OF PROCEDURES

8-32-601 **Analysis of Samples:** Samples of VOC as specified in subsections 8-32-302.1, 303.1 or 304.1 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 21 or 22. Samples of VOC as specified in subsections 8-32-302.2, 303.2 or

304.2 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 31. Samples containing parachlorobenzotriflouride shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 41.

(Amended April 17, 1991, June 19, 1996)

8-32-602 **Determination of Emissions:** Emissions of volatile organic compounds as specified in Sections 8-32-302, 303 or 304 shall be measured as prescribed by any of the following methods: 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. When either EPA Method 25 or 25A is used, control device equivalency shall be determined as prescribed in 55 FR 26865 (June 29, 1990). For the purpose of determining abatement device efficiency, any acetone, PCBTF or VMS shall be included as Volatile Organic Compounds. A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule.

(Adopted April 17, 1991; Amended June 15, 1994, June 19, 1996)

8-32-603 **Emissions Averaging Procedure:** The procedure for averaging coatings to determine compliance with Section 8-32-307 and sample calculations may be found in the Manual of Procedures, Volume I, Section 6. (Amended June 19, 1996)

REGULATION 8
ORGANIC COMPOUNDS
RULE 33
GASOLINE BULK TERMINALS AND GASOLINE DELIVERY VEHICLES

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REGULATION 8
ORGANIC COMPOUNDS
RULE 33
GASOLINE BULK TERMINALS AND GASOLINE DELIVERY VEHICLES
(Adopted November 30, 1983)

8-33-100 GENERAL

8-33-101 Description: The purpose of this Rule is to limit emissions of organic compounds from gasoline transfer operations at gasoline bulk terminals and delivery vehicles. (Amended October 7, 1987; June 1, 1994)

8-33-110 Exemptions

8-33-111 Delivery Vehicle Exemptions: The requirements of subsections 8-33-304.1 and 304.2 do not apply to gasoline delivery vehicles which deliver exclusively to;

111.1 Storage tanks with a capacity of less than 1.0 cubic meter (260 gallons).

111.2 Storage tanks installed prior to February 18, 1987, with an annual throughput of less than 227 cubic meters (60,000 gallons).

111.3 Storage tanks with a capacity of less than 2.2 cubic meters (550 gallons), used primarily for the fueling of implements of husbandry as defined in Division 16, Chapter 1, of the California Vehicle Code.

111.4 Storage tanks where the APCO determines that Phase I vapor recovery is not feasible. (Amended January 9, 1985; October 7, 1987; June 1, 1994)

8-33-112 Tank Gauging and Inspection: Any tank may be opened for gauging or inspection when loading operations are not in progress provided that such tank is not pressurized. (Amended and Renumbered October 7, 1987)

8-33-113 Maintenance and Repair Exemption: The requirements of Section 8-33-306 shall not apply to spills and vapor leaks resulting from maintenance or repair operations provided proper operating practices are employed to minimize evaporation of gasoline into the atmosphere. (Renumbered October 7, 1987)

8-33-200 DEFINITIONS

8-33-201 CARB Certified Vapor Recovery System: A vapor recovery system which has been certified by the California Air Resources Board (CARB) pursuant to Section 41954 of the Health and Safety Code. (Amended October 7, 1987)

8-33-202 Gasoline Bulk Terminal: A distributing facility which receives gasoline by other than tank truck, or rail car, stores it in stationary tanks, and loads it into tank trucks for delivery to gasoline bulk plants, service stations or other distribution points. (Amended October 7, 1987; June 1, 1994)

8-33-203 Gasoline: Petroleum distillates used as motor fuel with a Reid vapor pressure greater than 4.0 pounds.

8-33-204 Leak Free: A liquid leak of less than four drops per minute excluding losses which occur upon disconnecting transfer fittings, provided such disconnect losses do not exceed 10 milliliters (0.34 fluid ounces) per disconnect, averaged over three disconnects.

8-33-205 Submerged Fill Pipe: Any discharge pipe or nozzle which meets either of the following conditions:

205.1 Where the tank is filled from the top, the end of the discharge pipe or nozzle must be totally submerged when the liquid level is 15 cm (6 in.) from the bottom of the tank.

205.2 Where the tank is filled from the side, the discharge pipe or nozzle must be totally submerged when the liquid level is 46 cm (18 in.) from the bottom of the tank.

8-33-206 **Switch Loading:** For the purpose of this Rule, switch loading is the loading of organic liquids with a Reid vapor pressure of less than 4.0 pounds into a delivery vehicle where the previous load was gasoline.

8-33-207 **Vapor Tight:** A leak of less than 100 percent of the lower explosive limit on a combustible gas detector measured at a distance of 2.5 cm (1 in.) from the source or no visible evidence of air entrainment in the sight glasses of liquid delivery hoses.

8-33-208 **Vapor Tight - Gasoline Cargo Tank:** A leak that does not exceed the standards specified in the CARB "Certification and Test Procedures for Vapor Recovery Systems on Gasoline Delivery Tanks. (Adopted January 9, 1985)

8-33-209 **Deleted June 1, 1994**

8-33-210 **Organic Compound:** Any compound of carbon, excluding methane, carbon monoxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate. (Adopted June 1, 1994)

8-33-300 **STANDARDS**

8-33-301 **Final Gasoline Bulk Terminal Limitations:** Effective April 1, 1989, a person shall not load or permit the loading of gasoline into or out of a gasoline bulk terminal unless a CARB certified vapor recovery system is properly connected and used. Such systems shall not emit into the atmosphere more than 9.6 grams of organic compounds per cubic meter (0.08 lbs per 1000 gallons) of organic liquid loaded. Switch loading shall be subject to this standard. Where multiple processors are used, each processor shall be subject to this standard.
(Amended October 7, 1987; July 20, 1988; June 1, 1994)

8-33-302 **Vapor Recovery System Requirement:** A person shall not install a vapor recovery system unless it is CARB certified. (Amended October 7, 1987)

8-33-303 **Bottom Fill Requirement:** Delivery vehicle loading operations at gasoline bulk terminals shall be accomplished by bottom fill. (Amended October 7, 1987)

8-33-304 **Delivery Vehicle Requirements:** Gasoline delivery vehicles are subject to the following requirements:

304.1 Vapor Integrity Requirement: A person shall not operate, or allow the operation of, a gasoline delivery vehicle unless valid State of California decals, as required by Section 41962 of the Health and Safety Code which attest to the vapor integrity of the tank, are displayed.

304.2 Vapor Recovery Requirement: Any gasoline delivery vehicle loading at a facility subject to the requirements of Section 8-33-301 shall be equipped with and use a vapor recovery system.

304.3 Deleted October 7, 1987.

304.4 Purging Requirement: A person shall not purge gasoline vapor from the tank of a delivery vehicle to the atmosphere.

(Renumbered, Amended January 9, 1985, October 7, 1987)

8-33-305 **Equipment Maintenance:** All equipment associated with delivery and loading operations shall be maintained to be leak free, vapor tight and in good working order.

8-33-306 **Operating Practices:** Gasoline shall not be spilled, discarded in sewers, stored in open containers, or handled in any other manner that would result in evaporation to the atmosphere.

8-33-307 **Loading Practices:** Loading operations which use vapor processing equipment shall be operated in such a manner that the vapor processing capacity is not exceeded.

8-33-308 **Vapor Diaphragm Requirements:** Diaphragms used in vapor storage tanks shall be maintained such that organic compound emissions from the airspace above the diaphragm do not exceed a concentration of 3,000 parts per million expressed as methane and 6.8 kilograms (15 pounds) per day. (Amended October 7, 1987)

8-33-309 **Vapor Recovery System Requirements - Loading Rack:** The system shall be maintained and operated in a manner that prevents gauge pressure in the delivery tank from exceeding 46cm (18 in.) of water column during product loading.
(Adopted January 9, 1985)

8-33-310 **Interim Gasoline Bulk Terminal Limitations:** Until April 1, 1989, a person shall not load or permit the loading of gasoline into or out of a gasoline bulk terminal unless a CARB certified vapor recovery system is properly connected and used. Such systems shall not emit into the atmosphere more than 66 grams of organic compounds per cubic meter (0.55 lbs per 1000 gallons) of organic liquid loaded. Switch loading shall be subject to this standard. Where multiple processors are used, each processor shall be subject to this standard.
(Adopted July 20, 1988; Amended June 1, 1994)

8-33-400 **ADMINISTRATIVE REQUIREMENTS**

8-33-401 **Equipment Installation and Modification:** A person shall not install or modify stationary gasoline storage tanks greater than 1 cubic meter (260 gallons) or vapor recovery equipment, exclusive of repair, unless an authority to construct has been obtained pursuant to Section 301 of Regulation 2, Rule I.

8-33-402 **Implementation:** Any person who must install or modify vapor recovery equipment as required by Section 8-33-301 of this rule as amended on October 7, 1987, shall meet the following increments of progress:
(a) By April 1, 1988, submit an application to the APCO for Authority to Construct.
(b) By April 1, 1989, be in final compliance.
(Amended October 7, 1987; December 2, 1987)

8-33-500 **MONITORING AND RECORDS**

8-33-501 **Burden of Proof:** The burden of proof of eligibility for exemption from this rule is on the applicant. Persons seeking such an exemption shall maintain adequate records and furnish them to the APCO upon request.

8-33-600 **MANUAL OF PROCEDURES**

8-33-601 **Emission Rate Determination (Vapor Processing Systems):** The means by which mass emission rates of vapor processing systems are set forth in the Manual of Procedures, Volume IV, ST-34 (Amended October 7, 1987; June 1, 1994)

8-33-602 **Emission Rate Determination (Vapor Balance System):** The means for determining mass emission rates from vapor balance systems are set forth in the Manual of Procedures, Volume IV, ST-3.

8-33-603 **Vapor Recovery System Loading Pressure:** The means of determining gauge pressure in the delivery truck are set forth in the Manual of Procedures, Volume IV, ST-34. (Adopted January 9, 1985; Amended June 1, 1994)

8-33-604 **Vapor Tight - Delivery Vehicles:** The means for determining vapor integrity for delivery vehicles are set forth in the Manual of Procedures, Volume IV, ST-33.
(Adopted October 7, 1987)

8-33-605 **Analysis of Samples:** Samples of gasoline as specified in Section 8-33-203 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 13.

(Renumbered January 9, 1985; October 7, 1987)

REGULATION 8
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REGULATION 8
ORGANIC COMPOUNDS
RULE 34
SOLID WASTE DISPOSAL SITES

(Adopted May 2, 1984)

8-34-100 GENERAL

8-34-101 Description: The purpose of this Rule is to limit the emission of non-methane organic compounds and methane from the waste decomposition process at solid waste disposal sites. The use of materials that contain volatile organic compounds, such as contaminated soil or sludge, in land treatment or refuse cover operations is considered to be an aeration operation and is subject to Regulation 8, Rule 40.

(Amended Sept. 17, 1986; Nov. 17, 1993; Oct. 6, 1999)

8-34-110 Limited Exemption, Old Landfills: The requirements of this Rule shall not apply to any landfill meeting the requirements of Sections 8-34-110.1, 110.2, and 110.3, provided the requirements of Section 8-34-405 are satisfied.

110.1 The landfill is a closed landfill or an inactive landfill with no design capacity available for future waste deposition,

110.2 The landfill last received solid waste at least thirty years ago, and

110.3 The owner has demonstrated that the site does not pose a health risk to human beings or a threat to the environment pursuant to California Health and Safety Code, Section 41805.5.

(Adopted October 6, 1999)

8-34-111 Limited Exemptions, Small Solid Waste Disposal Sites: The requirements of this Rule shall not apply to any solid waste disposal site meeting the requirements of Sections 8-34-111.1 and 111.2, provided the requirements of Sections 8-34-402 and 405 are satisfied.

111.1 The solid waste disposal site has an in-place tonnage of less than 907,194 megagrams (1,000,000 tons) of decomposable solid waste, and

111.2 The solid waste disposal site has a maximum design capacity of less than 2,500,000 megagrams (2,755,000 tons) or less than 2,500,000 cubic meters (3,269,000 cubic yards).

111.3 Deleted October 6, 1999

(Amended Sept. 17, 1986; Nov. 17, 1993; Jul. 17, 1996; Oct. 6, 1999)

8-34-112 Deleted November 17, 1993

8-34-113 Limited Exemption, Inspection and Maintenance: The requirements of Sections 8-34-301, 303 and 305 shall not apply to solid waste disposal sites during inspection and maintenance of the landfill gas collection or emission control system provided that the following conditions are met:

113.1 Emission of raw landfill gas to the atmosphere is minimized during shutdown.

113.2 The gas collection and emission control systems are not shutdown for more than 240 hours in any calendar year. The duration of a gas collection system shutdown shall not exceed 5 consecutive days. For the purposes of determining consecutive days of shutdown, collection system startups lasting less than 12 hours shall be considered to be shutdown days.

113.3 The applicable requirements of Section 8-34-501 are fulfilled.

(Adopted Nov. 17, 1993; Amended Jul. 17, 1996; Oct. 6, 1999)

8-34-114 Limited Exemption, Energy Recovery Device and Emission Control System: Until July 1, 2002, for any energy recovery device or emission control system installed and operating before January 1, 1995, the provision of Section 8-34-301.4 shall not apply provided the equipment reduces the amount of organic compounds and methane in the collected gases by at least 90 percent by weight. Effective July 1, 2002, this exemption shall not apply to any energy recovery device or emission control system. (Adopted November 17, 1993; Amended October 6, 1999)

8-34-115 Deleted October 6, 1999

8-34-116 **Limited Exemption, Well Raising:** The requirements of Sections 8-34-301.1, 301.2 and 305 shall not apply to individual wells involved in well raising provided all of the following conditions are met:

116.1 New fill is being added,

116.2 No more than five gas collection wells or ten percent of the gas collection wells of the landfill gas collection system, whichever number is less, are shut down at any time for well raising purposes. For the purposes of this section, a well shall be deemed shutdown if it has been disconnected from a vacuum source and is not meeting the requirements of Section 8-34-305,

116.3 A gas collection well is not disconnected from a vacuum source for longer than 24 consecutive hours unless fill is actively being placed or compacted in the immediate vicinity around the well,

116.4 Once installed, a gas collection well extension is sealed or capped until the raised well is reconnected to a vacuum source, and

116.5 Well disconnection times are recorded pursuant to Section 8-34-501.

(Adopted July 17, 1996; Amended October 6, 1999)

8-34-117 **Limited Exemption, Gas Collection System Components:** The requirements of Sections 8-34-301.1, 301.2, and 305 shall not apply to individual landfill gas collection system components that must be temporarily shut down in order to repair the components, to connect new landfill gas collection system components to the existing system, to prevent or extinguish fires, or to perform construction activities meeting the requirements of Sections 8-34-118.1 through 118.9, provided the following requirements are met:

117.1 Existing gas collection system components are being repaired to maintain compliance with this Rule or are being shut down to prevent or extinguish fires,

117.2 New gas collection system components are required to maintain compliance with this Rule and are included in the most recent Collection and Control System Design Plan as specified in Section 8-34-408,

117.3 For other construction activities, the requirements of Sections 8-34-118.1 through 118.9 must be met,

117.4 No more than five gas collection wells or ten percent of the gas collection wells of the landfill gas collection system, whichever number is less, are shut down at any time, except in cases where wells are being shut down to prevent or extinguish fires. For the purposes of this section, a well shall be deemed shutdown if it has been disconnected from a vacuum source and is not meeting the requirements of Section 8-34-305,

117.5 No gas collection well may be disconnected from a vacuum source for longer than 24 consecutive hours, unless the operator receives prior written approval from the APCO for a longer well shutdown time. Under no circumstances shall a gas collection well be disconnected from a vacuum source for longer than 5 consecutive days.

117.6 Well disconnection times are recorded pursuant to Section 8-34-501.

(Adopted October 6, 1999)

8-34-118 **Limited Exemption, Construction Activities:** The requirements of Sections 8-34-303 shall not apply to the working face of the landfill or to areas of the landfill surface where the landfill cover material has been removed and refuse has been exposed for the express purpose of installing, expanding, replacing, or repairing components of the landfill gas, leachate, or gas condensate collection and removal systems, provided the following requirements are met:

118.1 The operator shall submit a construction plan in writing to the APCO at least seven calendar days prior to beginning any construction activities, unless the construction activity is urgently required. Appropriate reasons for urgent construction activities include, but are not limited to, preventing or extinguishing fires, minimizing emissions of raw landfill gas to the atmosphere or meeting the requirements of Sections 8-34-414 or 415. For urgent construction activities, the operator shall notify the APCO of the need for an

urgent construction activity within 24 hours of discovery of the problem and shall submit an urgent construction activity report to the APCO within 30 calendar days of discovery of the problem. The construction plan or urgent construction activity report shall contain the following:

1.1 A description of the action(s) being taken,

1.2 A description of the areas of the landfill that will be affected by these actions,

1.3 A description of any landfill gas collection system components that will be affected by these actions,

1.4 A map of the landfill showing the affected areas and any affected collection system components,

1.5 The reason the action is required including a copy of the statute, regulation, standard, provision and/or permit clause that obligates the landfill to take the action(s) or written approval for the action(s) from the appropriate enforcement agencies,

1.6 A construction schedule including projected construction start and finish dates, projected equipment installation dates, and projected shutdown times for individual gas collection system components, and

1.7 A description of the mitigation measures planned to minimize potential air quality impacts.

118.2 For construction activities related to the installation, expansion, replacement, or repair of landfill gas collection system components, the action must be required to maintain compliance with this Rule, and any new collection system components must be included in the most recent Collection and Control System Design Plan.

118.3 For construction activities related to leachate or gas condensate collection and removal systems, the action must be required by or approved by the appropriate enforcement agency.

118.4 Emission of raw landfill gas to the atmosphere is minimized during construction,

118.5 Any excavated refuse is covered immediately and then properly disposed of within 24 hours of excavation,

118.6 No drilled wells or excavated trenches shall be left uncovered for more than 8 hours,

118.7 The installation time for each component is minimized,

118.8 Landfill gas collection wells are sealed or capped until the well is connected to a vacuum source,

118.9 The construction dates and times for each well are recorded pursuant to Section 8-34-501.

(Adopted October 6, 1999)

8-34-119 **Limited Exemption, Inactive or Closed Landfills:** The requirements of Sections 8-34-305, 406, 407, 412, 413, 414, 505, and 506 shall not apply to inactive or closed landfills that last received waste before November 8, 1987 and that have no design capacity available for future waste deposition. (Adopted October 6, 1999)

8-34-120 **Limited Exemption, Small Design Capacity Landfills:** The requirements of Sections 8-34-305, 406, 407, 412, 413, 414, 505, and 506 shall not apply to solid waste disposal sites with a design capacity of less than 2,500,000 megagrams (2,755,000 tons) or less than 2,500,000 cubic meters (3,269,000 cubic yards).

(Adopted October 6, 1999)

8-34-121 **Limited Exemption, Low Emission Landfills:** The requirements of Sections 8-34-301, 303, 304, and 305 shall not apply to solid waste disposal sites which meet all of the following requirements:

121.1 The solid waste disposal site has an in-place tonnage of less than 907,194 megagrams (1,000,000 tons) of decomposable solid waste, and

121.2 The solid waste disposal site has an NMOC emission rate of less than 50 megagrams per year (55 tons per year) as determined using the procedures in 40 CFR 60.754(a).

(Adopted October 6, 1999)

8-34-122 **Limited Exemption, Permanent Collection and Control System Shutdown:** The requirements of Sections 8-34-301, 303, 304, and 305 shall not apply to closed landfills which meet all of the following requirements:

122.1 The landfill last accepted waste at least 30 years ago,

122.2 The gas collection system and emission control system have been in operation for a minimum of fifteen years,

122.3 The landfill has an NMOC emission rate of less than 50 megagrams per year (55 tons per year) as determined using the procedures in 40 CFR 60.752(b)(2)(v)(C) and 60.754(b),

122.4 The operator can demonstrate to the satisfaction of the APCO that the landfill, without a gas collection system, would pass a risk screening analysis, as defined in Regulation 2-1-225, performed according to the current Air Toxic Risk Screening Procedure, and

122.5 The APCO has approved the Equipment Removal Report required pursuant to Section 8-34-410.

(Adopted October 6, 1999)

8-34-200 **DEFINITIONS**

Except as noted below, all terms in this Rule shall be defined as in 40 CFR 60.751.

8-34-201 **Solid Waste Disposal Site:** A Waste Management Facility, as defined by California Code of Regulations Title 27 §20164, or a Municipal Solid Waste Landfill as defined in 40 CFR 60.31(c) or 60.751.

(Amended Sept. 17, 1986; Nov. 17, 1993; Oct. 6, 1999)

8-34-202 **Solid Waste:** All decomposable and non-decomposable solid, semisolid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes. Solid waste also includes any material meeting the definition of Solid Waste in 40 CFR 60.751.

(Adopted Sept. 17, 1986; Amended Jul. 17, 1996; Oct. 6, 1999)

8-34-203 **Non-decomposable Solid Waste:** Materials which do not degrade biologically to form landfill gas. Examples include, but are not limited to, earth, rock, concrete, asphalt paving fragments, clay products, inert tailings, inert plastics, plasterboard, vehicle tires, glass, inert slag, asbestos, and demolition materials containing minor amounts (less than 10 percent by volume) of wood and metals. Materials that do not meet this definition shall be considered decomposable solid waste.

(Adopted Sept. 17, 1986; Amended.Nov. 17, 1993; Jul. 17, 1996; Oct. 6, 1999)

8-34-204 **Landfill Gas:** Any untreated, raw gas derived through a natural process from the decomposition of organic waste deposited in a solid waste disposal site or from the evolution of volatile species in the waste. (Adopted September 17, 1986)

8-34-205 **Active Landfill:** A landfill that is accepting solid waste for disposal.

(Adopted November 17, 1993; Amended October 6, 1999)

8-34-206 **Background:** The ambient concentration of total organic compounds, including all methane and non-methane organic compouds, determined at least 3 meters (10 feet) upwind from the valve or connector to be inspected and not influenced by any specific emission point as indicated by a hydrocarbon analyzer specified by Section 8-34-504.

(Adopted November 17, 1993; Amended October 6, 1999)

8-34-207 **Energy Recovery Device:** Any combustion device which uses landfill gas to recover energy in the form of steam or electricity, including, but not limited to, gas turbines, internal combustion engines, boilers and boiler-to-steam turbine systems.

(Adopted November 17, 1993)

8-34-208 **Emission Control System:** Any system which disposes of collected landfill gas employing one or more of the following means: combustion, adsorption, gas treatment for subsequent sale, or sale for processing offsite, or an equivalent method

that achieves the destruction/treatment efficiency specified in the applicable standards section. (Adopted November 17, 1993; Amended July 17, 1996)

8-34-209 **Destruction Efficiency:** A measure of the ability of the control device to combust, transform, or otherwise prevent emissions of non-methane organic compounds in landfill gas to the atmosphere, expressed as a percentage.
(Adopted November 17, 1993; Amended October 6. 1999)

8-34-210 **Gas Collection System:** Any system which employs various gas collection wells and connected piping, and mechanical blowers, fans, pumps, or compressors to create a pressure gradient and extract landfill gas.
(Adopted November 17, 1993; Amended July 17, 1996)

8-34-211 **Inactive Landfill:** A landfill that is no longer accepting solid waste for disposal.
(Adopted November 17, 1993; Amended October 6, 1999)

8-34-212 **Landfill:** Any location within a solid waste disposal site used for the permanent disposal of waste where the organic portion of the waste is subject to natural processes of aerobic and anaerobic decomposition. (Adopted November 17, 1993)

8-34-213 **Component Leak:** The concentration of total organic compounds (non-methane organic compounds and methane) measured above background, expressed as methane and measured 1 centimeter or less from the component leak source.
(Adopted November 17, 1993; Amended October 6, 1999)

8-34-214 **Minimization:** The shutting of valves, insertion of sewer plugs, or any other similar method that reduces emissions of raw landfill gas to the atmosphere.
(Adopted November 17, 1993)

8-34-215 **Non-repeatable, Momentary Readings:** Indications of the presence of non-methane organic compounds and methane which persist for less than five seconds and do not recur when the sampling probe of a portable gas detector is placed in the same location. (Adopted November 17, 1993; Amended October 6, 1999)

8-34-216 **Operator:** The landowner of a solid waste disposal site and any other person who through a lease, franchise agreement or other arrangement with the landowner becomes responsible to the District for compliance with the provisions of this Rule.
(Adopted November 17, 1993)

8-34-217 **Non-Methane Organic Compound (NMOC):** Any compound which contains at least one atom of carbon except: methane, carbon monoxide, carbon dioxide, metallic carbides, carbonates, and carbonic acid.
(Adopted November 17, 1993; Amended October 6, 1999)

8-34-218 **Enforcement Agency:** The California Regional Water Quality Control Board (RWQCB), California Integrated Waste Management Board (CIWMB), or a designated local enforcement agency that has CIWMB delegated regulatory enforcement authority over solid waste disposal sites. (Adopted July 17, 1996)

8-34-219 **Continuous Operation:** A landfill gas collection system and emission control system shall be considered to be operated continuously when all existing gas collection wells are operating under vacuum while maintaining landfill gas flow with the collected landfill gas being processed by an emission control system or energy recovery device 24 hours per day. (Adopted July 17, 1996)

8-34-220 **Leak Repair:** Tightening, adjustment, the addition of sealing material or replacement of components that reduce leakage to the atmosphere below the limit specified in Section 8-34-301.2. (Adopted July 17, 1996; Amended October 6, 1999)

8-34-221 **Well Raising:** A landfill activity where an existing gas collection well is temporarily disconnected from a vacuum source, and the non-perforated pipe attached to the well is extended vertically to allow the addition of a new layer of solid waste or the final cover; or is extended horizontally to allow the horizontal extension of an existing layer of solid waste or cover material. The extended pipe (well extension) is then re-connected in order to continue collecting gas from that well.
(Adopted July 17, 1996; Amended October 6, 1999)

8-34-222 **Fill:** Solid waste and surface cover material that is placed in a landfill.
(Adopted July 17, 1996)

8-34-223 **Closed Landfill**: A landfill which is no longer accepting solid waste for disposal and has documentation that closure was conducted in accordance with the applicable statutes, regulations, and local ordinances in effect at the time.
(Adopted July 17, 1996)

8-34-224 **Working Face:** The open area where daily waste is deposited and compacted with landfill equipment. (Adopted July 17, 1996)

8-34-225 **Landfill Surface:** The area of the landfill under which decomposable solid waste has been placed, excluding the working face. Vaults containing equipment that is not part of the gas collection system and that are located at or near the surface of the landfill shall be considered part of the landfill surface. Such vaults may contain gas condensate or leachate management systems, ground water monitoring equipment, perimeter probes used exclusively for detecting subsurface landfill gas migration, electrical, water, sewer, or related equipment. Vaults containing gas collection system equipment, where the operator has demonstrated to the satisfaction of the APCO that the collection system equipment contained within the vault is properly operating and not leaking in excess of the 8-34-301.2 limit, shall be considered part of the landfill surface. (Adopted October 6, 1999)

8-34-226 **Controlled Solid Waste Disposal Site:** Any solid waste disposal site that is equipped with a landfill gas collection system. (Adopted October 6, 1999)

8-34-227 **Surface Leak:** The concentration of total organic compounds (non-methane organic compounds and methane) measured above background, expressed as methane. Until July 1, 2002, surface leak concentrations shall be measured at 7.5 centimeters (3 inches) above the landfill surface. Effective July 1, 2002, surface leak concentrations shall be measured at 5 centimeters (2 inches) above the landfill surface. (Adopted October 6, 1999)

8-34-228 **Component:** Any equipment that is part of the gas collection system or emission control system and that contains landfill gas including, but not limited to, wells, pipes, flanges, fittings, valves, flame arrestors, knock-outs, sampling ports, blowers, compressors, or connectors, but excluding landfill gas analyzers. Vaults containing gas collection system equipment, where the top of the vault is located at or near the surface of the landfill, are considered to be components, unless the operator can demonstrate to the satisfaction of the APCO that the collection system equipment contained within the vault is properly operating and not leaking in excess of the 8-34-301.2 limit. (Adopted October 6, 1999)

8-34-229 **Administrator:** For the purposes of this Rule, "Administrator" (as referred to in 40 CFR 60.750 et. seq.) means the Air Pollution Control Officer (APCO) of the Bay Area Air Quality Management District, except that the APCO shall not be empowered to approve alternatives to the test methods, standards, or work practices allowed by this Rule, except where such authority has been granted in 40 CFR 60.750 et. seq., such as in 40 CFR 60.752(b)(2)(i), 60.753(c) and (d). (Adopted October 6, 1999)

8-34-300 **STANDARDS**

8-34-301 **Landfill Gas Collection and Emission Control System Requirements**: Except as provided in Sections 8-34-110, 111, 113, 114, 116, 117, 121 and 122, an operator shall collect and process landfill gases through a gas collection system and emission control system installed in such a manner that the requirements of Sections 8-34-301.1 and 301.2 and either 301.3 or 301.4 are met:

301.1 The gas collection and emission control systems are operated continuously as defined in Section 8-34-219, unless the requirements of Section 8-34-404 are met; and

301.2 There are no component leaks that exceed 1000 ppm by volume measured as methane at any component that contains landfill gas, unless the leak has been discovered by the operator, recorded pursuant to Section 8-34-501, and repaired within 7 days; and

301.3 Until July 1, 2002, the collected gases are processed in a flare, of the enclosed ground type, which achieves an organic compound and methane

destruction efficiency of at least 98 percent by weight. Effective July 1, 2002, the collected gases are processed in an enclosed ground type flare, which reduces the amount of NMOC in the collected gases by at least 98 percent by weight or emits less than 30 ppm by volume of NMOC at the outlet, dry basis, expressed as methane, corrected to 3% oxygen; or

301.4 Until July 1, 2002, the collected gases are processed in an energy recovery device or emission control system that reduces the amount of organic compounds in the collected gases by at least 97 percent by weight and reduces the amount of methane in the collected gases by at least 97 percent by weight. Effective July 1, 2002, the collected gases are processed in an emission control system device, or series of devices, other than a flare, which reduces the amount of NMOC in the collected gases by at least 98 percent by weight or emits less than 120 ppm by volume of NMOC at the outlet, dry basis, expressed as methane, corrected to 3% oxygen.

(Amended Sept. 17, 1986; Nov. 17, 1993; Jul. 17, 1996; Oct. 6, 1999)

8-34-302 **Deleted November 17, 1993**

8-34-303 **Landfill Surface Requirements:** Until July 1, 2002 and except as provided in Sections 8-34-110, 111, 113, 118, 121 and 122, at no point on the surface of the landfill shall there be a concentration of organic compounds and methane, measured 7.5 cm (3 in) above the surface of the landfill that exceeds 1000 ppm by volume, expressed as methane above background, other than non-repeatable, momentary readings. Effective July 1, 2002 and except as provided in Sections 8-34-110, 111, 113, 118, 121 and 122, at no point on the landfill surface shall there be a surface leak that exceeds 500 ppm by volume, expressed as methane above background, other than non-repeatable, momentary readings, unless the landfill surface leak has been discovered by the operator and all of the requirements of Section 8-34-415 are satisfied.

(Adopted Nov. 17, 1993; Amended Jul. 17, 1996; Oct. 6, 1999)

8-34-304 **Gas Collection System Installation Requirements:** Gas collection wells or other approved gas collection system components shall be installed and operational in each area, cell, or group of cells in the landfill within 60 days of the sooner of the following dates:

304.1 The date in which the initial solid waste has been in place for a period of 2 years or more, for inactive or closed areas or cells or areas at final grade; or

304.2 The date in which the initial solid waste has been in place for a period of 5 years or more, for active areas or cells; or

304.3 The date in which a cumulative total of 1,000,000 tons of decomposable solid waste has been placed in an area or cell.

304.4 If Sections 304.1 through 304.3 do not apply, and an NMOC Emission Rate Report indicates that the NMOC emission rate calculated in accordance with 40 CFR 60.754(a) will exceed 50 megagrams per year (55 tons per year), then the initial gas collection and emission control system shall be installed and operational by July 1, 2002 or within 30 months of the date that NMOC emissions are first reported to exceed 50 megagrams per year, whichever is later. The operator may elect to recalculate the NMOC emission rate in accordance with 40 CFR 60.754(a)(3) or (4), provided that the operator complies with all provisions of 40 CFR 60.757(b), (c)(1), and (c)(2).

(Adopted October 6, 1999)

8-34-305 **Wellhead Requirements:** Effective July 1, 2002 and except as provided in Sections 8-34-119 or 120, each wellhead in the gas collection system shall meet the requirements of Sections 8-34-305.1 and 305.2 and either 305.3 or 305.4, unless the operator has discovered the excess and has satisfied all of the requirements of Section 8-34-414; or the operator has received permit conditions containing alternative operating levels:

305.1 Each wellhead shall operate under a vacuum (negative pressure); and

305.2 The landfill gas temperature in each wellhead shall be less than 55 °C (131 °F); and either

305.3 The nitrogen concentration in each wellhead shall be less than 20% by volume; or

305.4 The oxygen concentration in each wellhead shall be less than 5% by volume.

(Adopted October 6, 1999)

8-34-400 ADMINISTRATIVE REQUIREMENTS

8-34-401 Deleted November 17, 1993

8-34-402 Small Solid Waste Disposal Site Exemption Petition: Any operator seeking to satisfy the conditions of Section 8-34-111 shall comply with the following requirements:

402.1 A written petition for exemption shall be submitted to the APCO, and

402.2 The petitioner shall submit copies of all permits, waste discharge requirements, site disposal records, and any other data necessary to determine whether an exemption should be granted.

402.3 If the landfill is an active landfill or an inactive landfill with design capacity available for future waste deposition, the exemption granted under Section 8-34-111 shall be for a period of 12 months. A renewal request shall be submitted annually to the APCO until the operator completes all closure requirements in accordance with California Code of Regulation Title 27, Sections 20950 through 21200.

(Adopted Sept. 17, 1986; Amended Nov. 17, 1993; Jul. 17, 1996; Oct. 6, 1999)

8-34-403 Deleted November 17, 1993

8-34-404 Less than Continuous Operation Petition: Any operator seeking to operate less than continuously shall submit a written petition to the APCO that contains the following:

404.1 The landfill gas flow rate and methane concentrations as measured for the entire system or as measured for individual gas collection wells or components for which less than continuous operation is being sought;

404.2 A map showing the locations of individual components; and

404.3 An operating, maintenance, and inspection schedule.

404.4 If the APCO grants written approval, such approval shall contain landfill gas flow rate, methane concentration, and operating conditions.

404.5 A less than continuous operation petition must be renewed every three years or whenever the information submitted pursuant to Section 8-34-404.1 changes.

A petition to operate the entire gas collection and emission control systems less than continuously will only be considered when a landfill is not generating enough landfill gas to operate the emission control system continuously.

(Adopted Nov. 17, 1993; Amended Jul. 17, 1996; Oct. 6, 1999)

8-34-405 Design Capacity Reports: Any operator of a solid waste disposal site shall submit an Initial Design Capacity Report and, if applicable, an Amended Design Capacity Report to the APCO in accordance with the provisions of 40 CFR 60.757(a). The Initial Design Capacity Report is due no later than December 31, 1999, unless the site meets the requirements of 40 CFR 60.750. Sites meeting the requirements of 40 CFR 60.750 must meet the federal compliance times for landfills subject to New Source Performance Standards (NSPS). (Adopted October 6, 1999)

8-34-406 Initial NMOC Emission Rate Report: Except as provided in Sections 8-34-119 or 120, any operator of a solid waste disposal site, which has a maximum design capacity of at least 2,500,000 megagrams (2,755,000 tons) and at least 2,500,000 cubic meters (3,269,000 cubic yards), shall submit an Initial NMOC Emission Rate Report to the APCO in accordance with the provisions of 40 CFR 60.757(b). The Initial NMOC Emission Rate Report is due no later than December 31, 1999, unless the site meets the requirements of 40 CFR 60.750. Sites meeting the requirements of 40 CFR 60.750 must meet the federal compliance times for landfills subject to New Source Performance Standards (NSPS). (Adopted October 6, 1999)

8-34-407 **Periodic NMOC Emission Rate Reports:** Except as provided in Sections 8-34-119 or 120, any operator of a solid waste disposal site, which has a maximum design capacity of at least 2,500,000 megagrams (2,755,000 tons) and at least 2,500,000 cubic meters (3,269,000 cubic yards), shall submit annual NMOC Emission Rate Reports to the APCO in accordance with the provisions of 40 CFR 60.757(b), unless one of the following criteria apply:

407.1 The solid waste disposal site is closed as defined in 8-34-223, or

407.2 The solid waste disposal site is equipped with a gas collection and emission control system operating in compliance with the provisions of this rule and with the provisions of 40 CFR 60.752(b)(2), 60.753, and 60.755, or

407.3 The NMOC emission rate is calculated to be less than 50 megagrams per year (55 tons per year) in each of the next five years and the operator submits a 5-year report in lieu of an annual report.

(Adopted October 6, 1999)

8-34-408 **Collection and Control System Design Plan:** Any operator of a solid waste disposal site, which meets one of the criteria listed in Sections 8-34-408.1 through 408.4 below, is required to submit to the APCO a Collection and Control System Design Plan, prepared by a professional engineer and meeting the requirements of this Rule and 40 CFR 60.752(b)(2)(i) and 60.759. The Collection and Control System Design Plan shall be submitted to the APCO as a permit application. The APCO shall review and either approve or deny the Collection and Control System Design Plan in accordance with the permit application procedures identified in Regulation 2, Rule 1. An amended Collection and Control System Design Plan shall be submitted within 90 days of any event that requires a change to this plan.

408.1 An Initial or Periodic NMOC Emission Rate Report indicates that the NMOC emission rate will exceed 50 megagrams per year (55 tons per year). In this case, the Collection and Control System Design Plan shall be submitted within 1 year of the date of this Initial or Periodic NMOC Emission Rate Report, or

408.2 The solid waste disposal site is equipped with a collection and control system as of October 6, 1999. In this case, the initial Collection and Control System Design Plan is due no later than December 31, 2000, or

408.3 The operator is required to install and operate a gas collection system in the future, pursuant to Section 8-34-304.3. In this case, the Collection and Control System Design Plan is due at least 90 days before the date the gas collection system is required to be in operation, pursuant to Section 8-34-304. If the collection system is required to be in operation prior to March 31, 2001, the Collection and Control System Design Plan is due December 31, 2000, or

408.4 Sections 8-34-408.1 through 408.3 do not apply, but the operator elects to install a gas collection system. In this case, the Collection and Control System Design Plan is due at least 90 days before the operator's projected gas collection system installation date. If the operator plans to install the collection system prior to March 31, 2001, the Collection and Control System Design Plan is due December 31, 2000.

(Adopted October 6, 1999)

8-34-409 **Closure Report:** In accordance with the provisions of 40 CFR 60.757(d), any operator of a controlled solid waste disposal site, which has ceased accepting waste, shall submit a Closure Report to the APCO within 30 days of waste acceptance cessation. Landfills that are closed as of October 6, 1999 are not subject to this requirement. (Adopted October 6, 1999)

8-34-410 **Equipment Removal Report:** In accordance with the provisions of 40 CFR 60.757(e), any operator of a controlled solid waste disposal site seeking to satisfy the requirements of Section 8-34-122 shall submit an Equipment Removal Report to the APCO at least 30 days prior to capping any wells or shutting down any control equipment. The Equipment Removal Report shall be submitted to the APCO as a permit application. The Equipment Removal Report shall contain sufficient information to determine compliance with all provisions of Section 8-34-110. The

APCO shall review and either approve or deny the Equipment Removal Report in accordance with the permit application procedures identified in Regulation 2, Rule 1.

(Adopted October 6, 1999)

8-34-411 **Annual Report:** In accordance with the provisions of 40 CFR 60.757(f), any operator of a controlled solid waste disposal site shall submit to the APCO Annual Reports containing the information required by Sections 8-34-501, 503, 505, 506, 507, 508, and 509. The initial Annual Report shall include the initial Performance Test Report required by Section 8-34-413 and is due no later than 180 days from the initial start-up of the gas collection system, but not earlier than January 1, 2003.

(Adopted October 6, 1999)

8-34-412 **Compliance Demonstration Test:** Except as provided in Sections 8-34-119 or 120, any operator of equipment that is subject to Sections 8-34-301.4 or 301.5, shall conduct a Compliance Demonstration Test in accordance with the requirements of 40 CFR 60.8 and 60.752(b)(2)(iii)(B) using the test methods identified in 40 CFR 60.754(d). The initial Compliance Demonstration Test shall be conducted within 120 days of initial start up of the gas collection system or by October 1, 2002, whichever is later. Any operator that is subject to this requirement and that is required to have a Major Facility Review Permit, shall conduct annual Compliance Demonstration Tests.

(Adopted October 6, 1999)

8-34-413 **Performance Test Report:** Any operator required to meet Section 8-34-412 shall submit a Performance Test Report to the APCO in accordance with the provisions of 40 CFR 60.8. The initial Performance Test Report shall contain the information specified in 40 CFR 60.757(g) and shall be included in the initial Annual Report required by Section 8-34-411. Any operator required to perform annual Compliance Demonstration Tests shall submit the annual Performance Test Report along with the Annual Report required by Section 8-34-411. (Adopted October 6, 1999)

8-34-414 **Repair Schedule for Wellhead Excesses:** In accordance with the provisions of 40 CFR 60.755(a)(3 and 5), any operator subject to the requirements of Section 8-34-305 shall meet the following requirements, if any excess of a limit specified in Sections 8-34-305.1, 305.2, 305.3, or 305.4 is detected.

414.1 The operator shall record the date, the excess value and the well identification number.

414.2 The operator shall initiate action to correct the excess within 5 calendar days of discovering the problem.

414.3 If the excess cannot be corrected within 15 days of the date that the problem was first discovered, the gas collection system shall be expanded to correct the excess.

414.4 If a gas collection system expansion is required pursuant to Section 8-34-414.3, the expansion shall be completed and all new wells shall be operating within 120 days of the date that the problem was first discovered.

(Adopted October 6, 1999)

8-34-415 **Repair Schedule for Landfill Surface Leak Excesses:** In accordance with the provisions of 40 CFR 60.755(c)(4), any operator subject to the requirements of Section 8-34-303 shall meet the following requirements, if any excess of the limit specified in Section 8-34-303 is detected:

415.1 The operator shall mark the location and record the date, location and value of each monitored excess.

415.2 The operator shall initiate action, such as cover maintenance or well vacuum adjustments, to correct the excess within 5 calendar days of discovering the excess.

415.3 The location of the excess shall be re-monitored within 10 calendar days of the date that the excess was first discovered.

415.4 If the re-monitoring pursuant to Section 8-34-415.3 indicates no excess of the Section 8-34-303 limit, the location shall be re-monitored within 1 month of the date that the excess was first discovered.

415.5 If the re-monitoring pursuant to Section 8-34-415.4 indicates no excess of the Section 8-34-303 limit, no further monitoring is required until the next regularly scheduled quarterly monitoring date.

415.6 If monitoring pursuant to Sections 8-34-415.3 or 415.4 indicates a second excess of the Section 8-34-303 limit, additional corrective action shall be initiated within 5 calendar days of detecting the second excess.

415.7 Any location exhibiting a second excess within a quarterly period shall be re-monitored within 10 calendar days of detecting the second excess.

415.8 If the re-monitoring pursuant to Section 8-34-415.7 indicates no excess of the Section 8-34-303 limit, the location shall be re-monitored within 1 month of the date that the second excess was discovered.

415.9 If the re-monitoring pursuant to Section 8-34-415.8 indicates no excess of the Section 8-34-303 limit, no further monitoring is required until the next regularly scheduled quarterly monitoring date.

415.10 If monitoring pursuant to Section 8-34-415.7 or 415.8 indicates a third excess of the Section 8-34-303 limit within a quarterly period, a gas collection system expansion shall be required.

415.11 If a gas collection system expansion is required pursuant to Section 8-34-415.10, the expansion shall be completed and all new wells shall be operating within 120 days of the date that the excess was first discovered.

(Adopted October 6, 1999)

8-34-416 **Cover Repairs:** Any operator subject to Section 8-34-510 shall repair the landfill surface cover as necessary to maintain compliance with the provisions of Section 8-34-303. (Adopted October 6. 1999)

8-34-500 **MONITORING AND RECORDS**

8-34-501 **Operating Records:** Any operator subject to this Rule shall record the following:

501.1 All collection system downtime, including individual well shutdown times and the reason for the shutdown;

501.2 All emission control system downtime and the reason for the shutdown;

501.3 Continuous temperature for all operating flares and any enclosed combustors subject to Section 8-34-507;

501.4 Testing performed to satisfy any of the requirements of this Rule;

501.5 Monthly landfill gas flow rates and well concentration readings for facilities subject to Section 8-34-404.

501.6 For operations subject to Sections 8-34-503 and 506, records of all monitoring dates, leaks in excess of the limits in Section 8-34-301.2 or Section 8-34-303 that are discovered by the operator, including the location of the leak, leak concentration in ppm by volume, date of discovery, the action taken to repair the leak, date of repair, date of any required re-monitoring, and the re-monitored concentration in ppm by volume.

501.7 Annual waste acceptance rate and the current amount of waste in-place.

501.8 Records of the nature, location, amount, and date of deposition of non-degradable wastes, for any landfill areas excluded from the collection system requirement as documented in the Collection and Control System Design Plan.

501.9 For operations subject to Section 8-34-505, records of all monitoring dates and any excesses of the limits stated in Section 8-34-305 that are discovered by the operator, including well identification number, the measured excess, the action taken to repair the excess, and the date of repair.

501.10 Continuous gas flow rate records for any site subject to Section 8-34-508.

501.11 For operations subject to Section 8-34-509, records of key emission control system operating parameters.

501.12 The records required above shall be made available and retained for a period of five years.

(Adopted Nov. 17, 1993; Amended Jul. 17, 1996; Oct. 6, 1999)

8-34-502 **Deleted October 6, 1999**

8-34-503 **Landfill Gas Collection and Emission Control System Leak Testing:** For facilities subject to Section 8-34-301.2, testing shall be performed quarterly in accordance with Section 8-34-602.

(Adopted Nov. 17, 1993; Amended Jul. 17, 1996; Oct. 6, 1999)

8-34-504 **Portable Hydrocarbon Detector:** Any instrument used for the measurement of total organic compounds, including all methane and non-methane organic compounds, shall be a gas detector that meets the specifications and performance criteria of and has been calibrated in accordance with EPA Reference Method 21 (40 CFR 60, Appendix A). (Adopted Nov. 17, 1993; Amended Oct. 6, 1999)

8-34-505 **Well Head Monitoring:** In accordance with the provisions of 40 CFR 60.756(a), any operator of a controlled landfill that is subject to the requirements of Section 8-34-305, shall monitor each individual wellhead on a monthly basis for the parameters listed in Sections 8-34-505.1 and 505.2 and either 505.3 or 505.4. Well head monitoring shall begin no later than August 1, 2002.

505.1 Gauge pressure, and

505.2 Landfill gas temperature, and

505.3 Landfill gas nitrogen concentration, or

505.4 Landfill gas oxygen concentration.

(Adopted October 6, 1999)

8-34-506 **Landfill Surface Monitoring:** In accordance with the provisions of 40 CFR 60.755(c)(1-3) and 60.756(f), any operator subject to the requirements of Section 8-34-303, shall monitor the landfill surface for total NMOC and methane concentration on a quarterly basis using the equipment and procedures specified by Section 8-34-607, unless the operator meets the requirements of Sections 8-34-119 or 120 or 506.1 through 506.3. Landfill surface monitoring shall begin no later than October 1, 2002.

506.1 The landfill is closed as defined in Section 8-34-223, and

506.2 The operator has detected no excesses of the Section 8-34-303 limit in three consecutive quarters of landfill surface monitoring, and

506.3 The operator shall monitor the landfill surface for total NMOC and methane concentration on an annual basis. The operator shall return to a quarterly monitoring schedule if any excess of the Section 8-34-303 limit is detected.

(Adopted October 6, 1999)

8-34-507 **Continuous Temperature Monitor and Recorder:** Any operator using a flare or other enclosed combustor to meet the requirements of Section 8-34-301, shall measure the temperature in the combustion zone of the device, using a continuous temperature monitor and recorder meeting the requirements of 40 CFR 60.756(b)(1).

(Adopted October 6, 1999)

8-34-508 **Gas Flow Meter:** In accordance with the provisions of 40 CFR 60.756(b)(2), any operator subject to the requirements of Section 8-34-301 shall install, calibrate, and maintain a gas flow measuring device that records the flow rate of landfill gas to the emission control system at least every 15 minutes. The gas flow meter shall be installed and operating no later than July 1, 2002. (Adopted October 6, 1999)

8-34-509 **Key Emission Control System Operating Parameter(s):** Any operator using an emission control system other than a flare or other enclosed combustor shall determine the key emission control system operating parameter(s) for the device using District approved methods and shall monitor the parameter(s) on a scheduled approved by the APCO. (Adopted October 6, 1999)

8-34-510 **Cover Integrity Monitoring:** In accordance with the provisions of 40 CFR 60.755(c)(5), any operator of a controlled solid waste disposal site shall monitor the landfill surface for cover integrity on a monthly basis using procedures specified in the Collection and Control System Design Plan for the site. Cover integrity monitoring shall begin no later than August 1, 2002. (Adopted October 6, 1999)

8-34-600 **MANUAL OF PROCEDURES**

8-34-601 **Determination of Emissions**: Emissions of non-methane organic compounds as specified in Section 8-34-301 shall be measured as prescribed by any of the following methods: BAAQMD Manual of Procedures, Volume IV, ST-7 and ST-14 or EPA Reference Methods 18, 25, 25A, or 25C (40 CFR 60, Appendix A). If Method 18 is used, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollution Emission Factors (AP-42). A source shall be considered in violation if the NMOC emissions measured by any of the referenced test methods exceed the standards of this rule. For the purposes of determining compliance using ST-7, NMOC is the same as organic compounds.

(Amended Nov. 17, 1993; Jun. 15, 1994; Oct. 6, 1999)

8-34-602 **Collection and Control System Leak Inspection Procedures:** For the purposes of Section 8-34-301.2, leaks shall be measured using a portable gas detector as prescribed in EPA Reference Method 21 (40 CFR 60, Appendix A).

(Adopted Nov. 17, 1993; Amended Jul. 17, 1996; Oct. 6, 1999)

8-34-603 **Landfill Gas Sampling Procedure:** For the purposes of Sections 8-34-121.2, 406, 407 or 408, landfill gas samples, which are necessary for determining landfill gas production rate or a site-specific k value, shall be taken either from existing wells or from temporary wells that meet the requirements specified in EPA Reference Method 2E (40 CFR 60, Appendix A). Landfill gas sampling for other purposes shall be performed according to BAAQMD Manual of Procedures, Volume IV, Part 1 or ST-7, or EPA Reference Methods 18, 25, 25A, or 25C (40 CFR 60, Appendix A). If Method 18 is used, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollution Emission Factors (AP-42).

(Adopted Nov. 17, 1993; Amended Jul. 17, 1996; Oct. 6, 1999)

8-34-604 **Determination of Concentration:** For the purposes of Sections 8-34-121.2, 305, 404, 406, 407, or 408, the percentage concentration of carbon dioxide, methane, nitrogen, or oxygen in the landfill gas shall be determined as prescribed in EPA Reference Method 3C (40 CFR 60, Appendix A).

(Adopted Nov. 17, 1993; Amended Jul. 17, 1996; Oct. 6, 1999)

8-34-605 **Determination of NMOC Emission Rate:** For the purposes of Sections 8-34-121.2, 406, or 407, the non-methane organic compound (NMOC) emission rate shall be determined as prescribed in 40 CFR 60.754(a). For the purposes of Section 8-34-122, the NMOC emission rate shall be determined as prescribed in 40 CFR 60.754(b). For the purposes of Section 8-34-408, the NMOC emission rate for non-productive areas shall be determined as prescribed in 40 CFR 60.759(a)(3)(ii).

(Adopted October 6, 1999)

8-34-606 **Determination of Maximum Expected Gas Generation Rate:** For the purposes of Section 8-34-408, the maximum expected gas generation rate shall be determined as prescribed in 40 CFR 60.755(a)(1). (Adopted October 6, 1999)

8-34-607 **Landfill Surface Inspection Procedures:** For the purposes of Section 8-34-303, the surface concentration of non-methane organic compounds and methane shall be measured using a portable hydrocarbon detector meeting the requirements of 40 CFR 60.755(d) and the applicable requirements of EPA Reference Method 21 (40 CFR 60, Appendix A). The probe shall be placed 5 centimeters (2 inches) above the ground. Monitoring shall be performed under the meteorological conditions specified in BAAQMD Manual of Procedures. The background concentration shall be determined as specified in BAAQMD Manual of Procedures. In accordance with the provisions of 40 CFR 60.753(d) and 60.755(c)(1-3), the entire perimeter of the landfill surface shall be inspected. The interior landfill shall be inspected along a pattern that traverses the landfill in 30 meter intervals or other APCO approved site-specific spacing. Landfill surface areas with distressed vegetation, cracks or seeps shall also be inspected. Steep slopes and other dangerous areas may be excluded from landfill surface inspection. (Adopted October 6, 1999)

8-34-608 **Determination of Gauge Pressure:** For the purposes of Section 8-34-305.1 and 505.1, gauge pressure shall be determined using a hand-held manometer, magnahelic gauge, or other APCO approved pressure measuring device. The device shall be calibrated and operated in accordance with manufacturer's specifications.

(Adopted October 6, 1999)

REGULATION 8
ORGANIC COMPOUNDS
RULE 35
COATING, INK AND ADHESIVE MANUFACTURING

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REGULATION 8
ORGANIC COMPOUNDS
RULE 35
COATING, INK AND ADHESIVE MANUFACTURING
(Adopted May 2, 1984)

8-35-100 General

8-35-101 Description: The purpose of this rule is to limit emissions of Organic Compounds from the manufacture of coatings, inks, and adhesives. (Amended March 18, 1992)

8-35-110 Exemptions, Small Manufacturers: Until January 1, 1993, the requirements of Sections 8-35-301 through 320 shall not apply to any coating and/or ink manufacturer, which produces less than 1.89 cubic meters (500 gals.) of coatings and/or ink in any one day. (Amended March 18, 1992)

8-35-111 Exemption, Waterbased Coatings and Paste Inks: Until January 1, 1993, the provisions of Section 8-35-301 of this rule shall not apply to any equipment while it is being used in the production of waterbased coatings and paste inks. (Amended March 18, 1992)

8-35-112 Exemption, Vats Less Than 45 Liters: Until January 1, 1993, the provisions of Section 8-35-301 and 303 of this rule shall not apply to any vat with a volume of 45 liters (12 gallons) or less. (Amended March 18, 1992)

8-35-113 Exemption, Low VOC Coatings, Inks and Adhesives: The provisions of Section 8-35-301 of this rule shall not apply to any equipment while it is being used in the production of low VOC coatings, inks or adhesives. (Adopted March 18, 1992)

8-35-114 Exemption, Specific Operations: The provisions of this rule shall not apply to the manufacture of coatings, inks or adhesives, which may be subject to other rules of Regulation 8. (Adopted March 18, 1992)

114.1 Flexible and Rigid Disc Manufacturing (Rule 38).

114.2 Paper, Fabric and Film Coating (Rule 12). (Adopted March 18, 1992)

8-35-115 Exemption, Adhesive Manufacturers: Until January 1, 1993, the provisions of this rule shall not apply to the manufacture of adhesives. (Adopted March 18, 1992)

8-35-116 Limited Exemption, Recordkeeping: The provisions of Section 8-35-501 shall not apply to solvent, which is used to clean or flush a mill or vat, during the manufacture of a coating, ink, or adhesive and is subsequently incorporated into the same batch. (Adopted March 18, 1992)

8-35-200 DEFINITIONS:

8-35-201 Coatings Manufacturer: Any manufacturing facility that mixes, blends, or compounds paints, varnishes, lacquers, enamels, shellacs, or sealers from raw materials. (Amended March 18, 1992)

8-35-202 Ink Manufacturer: Any manufacturing facility that mixes, blends, or compounds printing inks from raw materials. (Amended March 18, 1992)

8-35-203 Volatile Organic Compounds (VOC) : Any organic compound, (excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides of carbonates and ammonium carbonate) which would be emitted during the manufacture of coatings, inks or adhesives. (Amended March 18, 1992)

8-35-204 **Waterbased Coating:** A paint, varnish, lacquer, enamel, shellac, sealer or ink that contains 10 percent or more, by weight, of water, as determined by analytical procedures as prescribed in the Manual of Procedures, Volume III, Method 21.
(Amended March 18, 1992)

8-35-205 **Paste Ink:** An ink that contains, primarily, Magie Oil or glycol or equivalent solvent.

8-35-206 **High Speed Dispersion Mill:** A mixer with one or more blades that rotate at high speed in order to disperse coating solids.

8-35-207 **Grinding Mill:** A mill with cylindrical chambers containing grinding media such as balls, stones, pebbles, or sand that grind and disperse coating solids.
(Amended March 18, 1992)

8-35-208 **Roller Mill:** A mill with horizontal rollers that grind and disperse coating solids.
(Amended March 18, 1992)

8-35-209 **Adhesive Manufacturer:** Any manufacturing facility that mixes, blends or compounds adhesives from raw materials. (Adopted March 18, 1992)

8-35-210 **Low VOC Coating, Ink and Adhesive:** Any coating, ink or adhesive that contains less than 1% VOC (wt). (Adopted March 18, 1992)

8-35-211 **Tote Tank:** Any transportable container used to convey coatings, inks, adhesives or any other related materials with a capacity equal to or greater than 209 liters (55 gallons). (Adopted March 18, 1992)

8-35-212 **Solvent:** Organic compounds which are used as diluents, thinners, dissolvers, viscosity reducers, cleaning agents or for other similar uses.
(Adopted March 18, 1992)

8-35-213 **Approved Emission Control System:** A system for reducing emissions of VOC to the atmosphere, consisting of a control device and a collection system, which is approved in writing by the APCO and achieves the overall abatement efficiency specified in the applicable standards section at all times during normal operation of the equipment being controlled. (Adopted March 18, 1992)

8-35-214 **Leak Free:** A liquid leak of no greater than three drops per minute.
(Adopted March 18, 1992)

8-35-215 **Wipe Cleaning:** The method of cleaning which utilizes a material such as a rag wetted with a solvent, prior to a physical rubbing process to remove contaminants from surfaces. (Adopted March 18, 1992)

8-35-216 **Low Volatility Compounds:** For the purposes of this rule, solvents with an initial boiling point greater than 120oC (248oF), and where the initial boiling point exceeds the maximum operating temperature by at least 100oC (180oF).
(Adopted March 18, 1992)

8-35-217 **Nonporous Cover Material:** Cover material, including wood, that does not allow liquid to penetrate. (Adopted March 18, 1992)

8-35-218 **Fresh Solvent:** For the purpose of this rule, virgin solvent that has never been reused or recycled. (Adopted March 18, 1992)

8-35-219 **Key System Operating Parameter:** An emission control system operating parameter, such as temperature, flow rate or pressure, that ensures operation of the abatement equipment within manufacturer specifications and compliance with the standards in Section 8-35-301.6, 303.3, and 305. (Adopted June 15, 1994)

8-35-300 **STANDARDS**

8-35-301 **Portable and Stationary Mixing Operating Requirements:** Except as provided in Subsection 8-35-301.6, a person shall not manufacture coatings, inks, or adhesives unless all portable and stationary mixing vats are kept covered, except to add ingredients or to take samples, with lids which satisfy the following conditions:

301.1 Lids are maintained in good condition, such that when in place, they maintain contact with the rim for at least 90 percent of the circumference of the rim of the vat.

301.2 Lids may have a slit to allow clearance for insertion of a mixer shaft. The slit shall be covered after insertion of the mixer, except to allow safe clearance for the mixer shaft.

301.3 There shall be no holes, tears, or openings in the lid that would allow for the emission of organic vapors, except under the provision of Subsections 8-35-301.2 and 8-35-301.4.

301.4 The difference between the diameter of the mixer shaft and the diameter of the opening in the lid for the mixer shaft, shall be no greater than 5.1 cm (2 inches).

301.5 Polyethylene or other non-permanent covers may be used provided that the cover material is nonporous, as defined in Section 8-35-217, and the requirements of Subsections 8-35-301.1 through 8-35-301.4 are met.

301.6 The requirements of Subsection 8-35-301.1 through 8-35-301.4 shall not apply, if the emissions from portable and stationary mixing vats are vented to an approved emission control system that has an overall abatement efficiency of 80% or more on a mass basis. Where such reduction is achieved by incineration, at least 90% of the organic carbon shall be oxidized to carbon dioxide.(Adopted May 2, 1984;Amended March 18, 1992)

8-35-302 Deleted March 18, 1992

8-35-303 **Equipment Cleaning:** A person shall not manufacture a coating, ink, or adhesive unless portable or stationary mixing vats, high dispersion mills, grinding mills, tote tanks and roller mills are cleaned, except as provided in Section 8-35-320, by one or more of the following methods:

303.1 Use a cleaning material that either contains less than 200 grams VOC (wt) per liter or is a low volatility compound, as defined in Section 8-35-216. The low volatility cleaning material shall be collected and stored in closed containers.

303.2 Operate a closed cleaning system that has been approved by the APCO in writing and that meets the following conditions:

2.1 The system, including equipment being cleaned, is maintained leak free,

2.2 Organic solvent must be drained from the cleaned equipment before the system is opened to the atmosphere, and

2.3 Solvent, including waste solvent, shall not be stored or disposed of in such a manner that will cause or allow evaporation into the atmosphere.

303.3 Collect and vent the emissions from equipment cleaning to an approved emission control system that has an overall abatement efficiency of 80% or more on a mass basis. Where such reduction is achieved by incineration, at least 90% of the organic carbon shall be oxidized to carbon dioxide.

303.4 Use organic solvents other than those allowed in Section 8-35-303.1 provided the following conditions are met:

4.1 No more than 228 liters (60 gallons) of fresh solvent shall be used per month. Organic solvent that is reused or recycled (either onsite or offsite), for further use in equipment cleaning or the manufacture of coating, ink, or adhesive shall not be included in this limit.

4.2 Organic solvent, including cleanup solvent is collected and stored in closed containers.

4.3 Cleanup solvent records are maintained as required per Section 8-35-501. (Adopted May 2, 1984;Amended March 18, 1992)

8-35-304 **Grinding Mills:** Grinding mills installed after November 1, 1985 shall have fully enclosed screens.

8-35-305 **Stationary Vats:** A person shall not operate a stationary vat, which emits more than 6.8 kg (15 lbs.) per day of organic compounds unless all emissions from the vat have been vented to an approved emission control system that has an overall abatement efficiency of 80% or more on a mass basis. Where such reduction is achieved by incineration, at least 90% of the organic carbon shall be oxidized to carbon dioxide. (Amended March 18, 1992)

8-35-306 Deleted June 15, 1994.

8-35-320 **Wipe Cleaning and Cleanup Solvent:** The requirements of this Section shall apply to any person using solvent for wipe cleaning:

320.1 A person shall not use open containers for the storage or disposal of cloth or paper impregnated with organic compounds that is used for cleanup, or coating, ink, or adhesive removal.

320.2 A person shall not store spent or fresh organic compounds to be used for cleanup or coating, ink, or adhesive removal in open containers.

(Adopted March 18, 1992)

8-35-400 **ADMINISTRATIVE REQUIREMENTS**

8-35-401 Deleted March 18,1992

8-35-402 Deleted March 18, 1992

8-35-403 **Loss of Exemption:** Any person, who becomes subject to the requirements of Sections 8-35-301 and 303 through loss of exemption in Section 8-35-110 and 111, shall comply with the following increments of progress:

403.1 By July 1, 1992, submit to the APCO an application for an Authority to Construct and/or a compliance plan as necessary describing the method(s) to be used to comply with the requirements of this Rule.

403.2 By January 1, 1993, be in full compliance with all applicable requirements.

(Adopted March 18, 1992)

8-35-404 **Deleted June 15, 1994.**

8-35-500 **MONITORING AND RECORDS**

8-35-501 **Cleaning Solvent Records:** Any person subject to Sections 8-35-303 and 320 shall:

501.1 Record on a monthly basis facilitywide cleaning solvent usage for each solvent or solvent blend.

501.2 Indicate the following for each solvent or solvent blend used.

2.1 Total volume of fresh cleaning solvent used for equipment cleaning.

2.2 Total volume of cleaning solvent recovered for either off-site or on-site recycling.

2.3 Initial boiling point.

501.3 Records shall be maintained and available for inspection by the APCO, and retained for two years.

(Adopted May 2, 1984; Amended March 18, 1992; June 15, 1994)

8-35-502 **Burden of Proof:** Persons seeking to demonstrate compliance with Sections 8-35-301.6, 303.3, and 305 must maintain production records, adequate test data, and/or calculations that would allow the APCO to verify compliance on a daily basis.

(Adopted March 18, 1992)

8-35-503 **Approved Emission Control System, Recordkeeping Requirements:** Any person subject to Sections 8-35-301.6, 303.3, and 305 shall:

503.1 Record key system operating parameters on a daily basis.

503.2 Retain and have such records available for inspection by the APCO for the previous 24-month period. (Adopted June 15, 1994)

8-35-600 **MANUAL OF PROCEDURES**

8-35-601 **Analysis of Samples:** Samples of organic compounds shall be analyzed as prescribed in the Manual of Procedures, by the following applicable methods:

601.1 Volume III, Method 31 for the determination of volatile organic content as specified in Section 8-35-210 and 8-35-303.1.

601.2 ASTM D-1078-78 for the determination of initial boiling point as specified in Section 8-35-216 and Section 8-35-303.4.

(Adopted May 2, 1984; Amended March 18, 1992)

8-35-602 **Determination of Applicability:** The applicability of Section 8-35-305 shall be calculated or determined as described in EPA publication AP-42, Sections 5-10.1 and 5-14.1. (Adopted March 18, 1992)

8-35-603 **Determination of Emissions:** Emissions of organic compounds, as specified in Sections 8-35-301.6, 303.3, and 305 shall be measured as prescribed by any of the following methods: 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. A source shall be considered in violation if the VOC emissions measured by any of the methods exceed the standards of the rule.

(Adopted March 18, 1992; Amended June 15, 1994)

8-35-604 **Determination of Collection Efficiency:** The efficiency of the collection system, as specified in Sections 8-35-213 and 8-35-301.6, 303.3, and 305 shall be determined by the EPA test method cited in 55 FR 26865, 29 June 1990.

(Adopted March 18, 1992)

REGULATION 8

ORGANIC COMPOUNDS

RULE 36

RESIN MANUFACTURING

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REGULATION 8
ORGANIC COMPOUNDS
RULE 36
RESIN MANUFACTURING
(Adopted June 6, 1984)

8-36-100 GENERAL

8-36-101 Description: The purpose of this rule is to limit the emissions of precursor organic compounds from resin manufacturing operations.

8-36-200 DEFINITIONS

8-36-201 Blending Tank: A vessel in which resin, solvent, or other materials are added, normally to produce a final product blend.

8-36-202 Completed Resin: Resin solids, solvents and additives as delivered for sale or use.

8-36-203 Organic Compound: Any compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonage.

8-36-204 Organic Compound , Non-precursor: Methylene chloride, 1.1.1 trichloroethane, 1,1,2 trichlorotri-fluoroethane (CFC-113), trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), dichloro-tetrafluoroethane (CFC-114), chloropentafluoroethane (CFC-115), chlorodifluoromethane (CFC-22), and trifluoromethane (FC-23)

8-36-205 Organic Compound, Precursor: Any organic compound as defined in Section 8-36-203 excepting the non-precursor compounds defined in Section 8-36-204.

8-36-206 Resin: A solid or semi-solid, water insoluble, organic material with little or no tendency to crystallize. Resins may be used as the basic component of plastics and as components of surface coating formulations.

8-36-207 Resin Reactor: Equipment used to produce an organic resin by reacting organic or other materials. This may include a reaction vessel, a stripping column, condensers, and a decant vessel.

8-36-208 Thinning Tank: A vessel which receives resin and/or other reacting products from a resin reactor and to which solvents may be added.

8-36-300 STANDARDS

8-36-301 Resin Reactors, Thinning Tanks, and Blending Tanks: A person shall not operate a resin reactor unless one of the following standards is met:

301.1 Total emissions of precursor organic compounds to the atmosphere from the resin reactor, thinning tank and blending tank are abated by 95 percent or more.

301.2 Total emissions of precursor organic compounds to the atmosphere from all resin reactors, thinning tanks and blending tanks at the facility do not exceed 4.5 kg (10 lbs) per day.

8-36-400 ADMINISTRATIVE REQUIREMENTS

8-36-401 Compliance Schedule: Any person who is subject to the requirements of this rule shall comply with the following increments of progress:

401.1 By November 1, 1984: Submit to the APCO a plan describing the method(s) to be used to comply with the applicable requirements.

401.2 By January 1, 1985: Submit a completed application for any Authority to Construct necessary to comply with the applicable requirements.

401.3 By January 1, 1986: Be in full compliance with all applicable requirements.

8-36-600 **MANUAL OF PROCEDURES**

8-36-601 **Determination of Emissions:** Determination of Emissions of organic compounds as specified in Section 8-36-301 shall be measured as prescribed in the Manual of Procedures, Volume IV, ST-7.

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RULE 37
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REGULATION 8
ORGANIC COMPOUNDS
RULE 37
NATURAL GAS AND CRUDE OIL PRODUCTION FACILITIES

(Adopted March 20, 1985)

8-37-100 GENERAL

8-37-101 Description: The purpose of this Rule is to limit the emissions of organic compounds from natural gas and crude oil production facilities.
(Amended October 17, 1990)

8-37-110 Deleted October 17, 1990

8-37-111 Exemption, Distribution, Storage and Transportation Facilities: The provisions of this Rule shall not apply to natural gas distribution, transportation and storage facilities, including underground storage and associated processing facilities, provided the provisions of Section 8-37-403 are met. (Amended October 17, 1990)

8-37-112 Exemption, Methane: The provisions of this Rule shall not apply to natural gas streams which contain more than or equal to 90 percent methane by volume, provided the provisions of Section 8-37-404 are met. (Amended October 17, 1990)

8-37-113 Exemption, Water Streams: The provisions of this Rule shall not apply to liquid streams with a water content in excess of 90 percent by volume, provided the provisions of Section 8-37-405 are met. (Amended October 17, 1990)

8-37-200 DEFINITIONS

8-37-201 Background: The ambient concentration of organic compounds determined at least 3 meters (10 feet) upwind from the valve, flange, pump, compressor or component to be inspected and not influenced by any specific emission point.
(Amended October 17, 1990)

8-37-202 Essential Valve or Flange: A valve or flange which cannot be taken out of service without shutting down the process unit which it serves.

8-37-203 Flange: A projecting rim on a pipe or piping component used to attach it to another segment.

8-37-204 Deleted October 17, 1990

8-37-205 Deleted October 17, 1990

8-37-206 Valve: Any device that regulates the flow of fluids in a piping system by means of an external actuator acting to permit or block passage of liquids or gases.

8-37-207 Leak Minimization: The tightening, adjustment, or addition of packing or gasket material or the replacement of the valve, flange, pump, compressor or other component for the purpose of stopping or reducing leakage to the atmosphere, using best modern practices. (Amended October 17, 1990)

8-37-208 Leak Repair: The tightening, adjustment, or addition of packing or gasket material to a valve, flange, pump, compressor or other component or the replacement of the valve, flange, pump, compressor or other component, which reduces the leakage to the atmosphere below the limit of Section 8-37-301. (Amended October 17, 1990)

8-37-209 Choke: The regulating valve that controls the production rate of oil or gas.

8-37-210 Stuffing Box: The area or packing gland through which the pump polish rod passes and which is surrounded with packing material or "stuffing," to prevent leaks.

8-37-211 **Essential Pump or Compressor:** A pump or compressor which cannot be taken out of service without stopping production of production well.

8-37-212 **Lease Area:** The area where the well and associated production equipment is located.

8-37-213 **Natural Gas Production Facility:** Any facility engaged in the production of natural gas. For the purpose of this Rule, this includes all valves, flanges, chokes, pumps, compressors and other components, from the well head to the storage tank, including the oil and gas separator. Transport loading arms are included. (Amended October 17, 1990)

8-37-214 **Crude Oil Production Facility:** Any facility engaged in the production of crude oil. For the purpose of this Rule, this includes all valves, flanges, chokes, stuffing boxes, pumps and other components from the well head to the storage tank, including the oil and gas separator. Transport loading arms are included where used for custody transfer. (Amended October 17, 1990)

8-37-215 **Liquid Pool:** Any organic liquid that results in a pool of crude oil or condensate on the ground with a volume of at least 250 ml or covering an area of three inches in diameter and over one inch deep. (Amended October 17, 1990)

8-37-216 **Custody Transfer:** The transfer of produced petroleum and/or condensate, after processing and/or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

8-37-217 **Relief Valve:** A valve set to open when a predesignated pressure is reached.

8-37-218 **Component:** Pressure relief valves, threaded connections, hatches, sight glasses and fittings.

8-37-219 **Organic Compound:** Any compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. (Amended October 17, 1990)

8-37-300 STANDARDS

8-37-301 **Valves, Flanges, Chokes and Components:** A person shall not use any valve, flange, choke or component handling organic compounds in a natural gas or crude oil production facility if the concentration of organic compounds, measured 1 cm from any leak in such equipment exceeds 10,000 ppm (expressed as methane) above background, unless the following requirements are satisfied:

301.1 If the equipment is not essential, the leak shall be repaired within 24 hours.

301.2 If the equipment is essential, the leak shall be minimized within 24 hours.

301.3 If the equipment leak which has been minimized as required by subsection 301.2 still exceeds the limitations of Section 8-37-301, that equipment shall be repaired at the next scheduled maintenance of the well head. Any such equipment shall not be operated longer than three months before repairs are conducted. (Amended October 17, 1990)

301.4 Deleted October 17, 1990

8-37-302 **Liquid Pools:** There shall be no open liquid pools of crude oil or condensate in the lease area. (Amended October 17, 1990)

8-37-303 **Open Vessels:** No open or uncovered vessels of crude material larger than 250 ml shall be kept in the lease area. The well cellar shall be kept covered. (Amended October 17, 1990)

8-37-304 **Spills:** All spills of crude oil and condensate which causes a liquid pool shall be cleaned up by removal of the liquid within 24 hours of the spill detection.

8-37-305 **Pumps and Compressors:** A person shall not use any pump or compressor handling organic compounds in natural gas or crude oil production operation if the concentration of organic compounds exceeds 10,000 ppm (as methane), measured at a distance of 1 cm from the detected source, unless the following requirements are satisfied:

305.1 If the pump or compressor is not essential, that pump or compressor shall be removed from service for leak repairs within 24 hours of the discovery of the leak.

305.2 If the spare for the pump or compressor also exceeds the limitation of this section, leak repairs to either pump or compressor shall be completed within 30 days of discovery of its leak and the other pump or compressor may be operated until repairs are completed.

305.3 Deleted October 17, 1990

305.4 Deleted October 17, 1990

305.5 If the pump or compressor has a packed seal and is essential, the leak shall be minimized within 24 hours of its discovery.

305.6 If the pump or compressor is essential, and has been leak minimized as required by subsection 8-37-305.5 and still exceeds the limitation of this section, that pump or compressor shall be repaired at the next scheduled maintenance of the well head or within three months.

(Amended October 17, 1990)

305.7 All pumps and compressors shall be visually inspected at least weekly.

(Adopted October 17, 1990)

8-37-306 **Liquid Leaks:** No person shall use any valve, flange, pump, compressor, liquid line or component that has a liquid leak of more than three drops per minute. Such a leak shall be repaired within 24 hours of detection. If repair is not successful, the leaking component shall be replaced within 15 days. (Amended October 17, 1990)

8-37-307 **Stuffing Box Leaks:** A person shall not use any stuffing box where the concentration of organic compounds exceeds 10,000 ppm (as methane) above background, measured 1 cm from the polish rod box interface or where there is a liquid leak exceeding three drops per minute. (Amended October 17, 1990)

8-37-308 **Closed Hatches:** All access hatches shall remain closed except during active maintenance or repairs. (Adopted October 17, 1990)

8-37-309 **Reinspection of Repaired Components:** All components subject to Section 8-37-301, 305, 306, and 307 shall be reinspected within one week of repairs.

(Adopted October 17, 1990)

8-37-400 **ADMINISTRATIVE REQUIREMENTS**

8-37-401 **Identification:** Any valve, flange, choke, stuffing box, pump or compressor with a leak in excess of the limitations of Sections 8-37-301, 305 or 306 which has been detected by the operator and is awaiting repair shall be identified in a manner which is readily observable by a District inspector. Any leak in such equipment exceeding the limitations of Section 8-37-301, 305 or 306 which is detected by the APCO and which has not been so identified by the operator shall constitute a violation of this Section. (Amended October 17, 1990)

8-37-402 **Deleted October 17, 1990**

8-37-403 **Natural Gas Distribution, Storage and Transportation Facilities Petition:** Any person seeking to satisfy the conditions of Section 8-37-111 shall submit a written petition for exemption to the APCO. This petition shall include complete information on any associated processing facilities. (Adopted October 17, 1990)

8-37-404 **Methane Petition:** Any person seeking to satisfy the conditions of Section 8-37-112 shall comply with the following requirements:

404.1 A written petition for exemption shall be submitted to the APCO showing the percentage of methane in the natural gas stream is more than or equal to 90% by volume.

404.2 If the APCO grants written approval, such petition will be repeated on an annual basis and accompanied by a current gas stream analysis.

(Adopted October 17, 1990)

8-37-405 **Water Streams Petition:** Any person seeking to satisfy the conditions of Section 8-37-113 shall comply with the following requirements:

405.1 A written petition for exemption shall be submitted to the APCO showing the percentage of water in the liquid stream is greater than or equal to 90% by volume.

405.2 If the APCO grants written approval, such petition will be repeated on an annual basis and accompanied by a current liquid stream analysis.

(Adopted October 17, 1990)

8-37-500 **MONITORING AND RECORDS**

8-37-501 **Portable Hydrocarbon Detector:** Any instrument used for the measurement of organic compounds shall be a combustible gas detector or any other type of instrument approved by the APCO that meets the specifications and performance criteria of, and is calibrated in accordance with, EPA Reference Method 21.

(Amended October 17, 1990)

8-37-502 **Records:** Any person subject to this Rule shall comply with the following recordkeeping requirements:

502.1 Records of equipment repairs as required by Sections 8-27-301, 305 or 306 shall be maintained. These records shall include the dates on which the leaking equipment was discovered, minimized and/or repaired.

502.2 Inspection records shall be maintained for at least two years and shall be made available to the APCO upon request. (Adopted October 17, 1990)

8-37-600 **MANUAL OF PROCEDURES**

8-37-601 **Inspection Procedure:** Inspection of valves, pumps, flanges, compressors and components shall be conducted as prescribed by EPA Reference Method 21.

8-37-602 **Methane and Water Analysis:** Analyses for the purpose of meeting the exemption requirements of Sections 8-37-112 and 8-37-113 shall be done according to the general guidelines of ASTM Methods E-168, E-169 and E-260, or other methods approved by the APCO. (Adopted October 17, 1990)

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REGULATION 8
ORGANIC COMPOUNDS
RULE 38
FLEXIBLE AND RIGID DISC MANUFACTURING
(Adopted October 2, 1985)

8-38-100 GENERAL

8-38-101 Description: The purpose of this Rule is to limit the emissions of volatile organic compounds from the manufacture of flexible and rigid magnetic data storage discs.

8-38-110 Exemption, Non-Precut Substrates: The requirements of this Rule shall not apply to coating, washing, or mixing operations used in the production of disc substrate materials that are in sheets or rolls not cut into final disc form. Such coating operations are subject to Rule 12 of this Regulation unless exempted by that Rule.

8-38-111 Exemption, Low VOC Coatings: The requirements of Sections 8-38-301 and 303 shall not apply to the application, mixing, or milling of any coating with a VOC content of less than 340 grams per liter of coating applied, excluding water (2.8 pounds per gallon).

8-38-112 Exemption, Low VOC Solvents: The requirements of Section 8-38-302 shall not apply to the use of any solvent containing less than 15 percent VOC, by weight.

8-38-113 Exemption, Small Coating Lines: The requirements of Section 8-38-301 shall not apply to any disc coating line which does not emit more than 6.8 kilograms of VOC per operating day (15 lb/day).

8-38-114 Exemption, Small Polishing Lines: The requirements of Section 8-38-302 shall not apply to any disc polishing line which does not emit more than 10 kilograms of VOC per operating day (22 lb/day).

8-38-115 Exemption, Small Mixing Operation: The requirements of Section 8-38-303 shall not apply to any mixing vat with a volume of 0.045 cubic meters (12 gallons) or less.

8-38-116 Exemption, Equipment Cleaning: The requirements of this Rule shall not apply to the emissions of VOC resulting from the cleaning of disc coating or polishing equipment.

8-38-200 DEFINITIONS

8-38-201 Flexible Magnetic Data Storage Disc: A flat, circular plastic film, contained in a non-rigid envelope, with a magnetic coating on which digital information can be stored by selective magnetization of portions of the flat surface.

8-38-202 Rigid Magnetic Data Storage Disc: A flat, circular, non-flexible plate with a magnetic coating on which digital information can be stored by selective magnetization of portions of the flat surface.

8-38-203 Disc Coater: Any device used for applying a magnetizable film to the substrate of flexible or rigid magnetic data storage discs.

8-38-204 Disc Polisher: Any device or technique using a physical rubbing process with an organic solvent on the surface of flexible or rigid magnetic data storage discs for the purpose of removing contaminants or oxidation or for increasing surface smoothness, resolution or gloss. Solvent cleaning devices using immersion or agitation in solvent or solvent vapors are subject to Rule 16 of this Regulation unless exempted by that Rule.

8-38-205 Coating Mixing Operation: Any vat used for blending, milling or dispersing oxide, resin, solvent, or any other compounds in the preparation of a magnetizable coating in the manufacture of flexible or rigid magnetic data storage discs.

8-38-206 **Disc Coating Line:** All disc coaters at a facility dedicated to the manufacture of a specific magnetic data storage disc product.

8-38-207 **Disc Polishing Line:** All disc polishers at a facility dedicated to the manufacture of a specific magnetic data storage disc product.

8-38-208 **Volatile Organic Compound (VOC):** Any organic compound [excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, which would be emitted during the use, application, curing or drying of a solvent or surface coating.

208.1 For the purposes of calculating VOC content of a coating, any water or the following non-precursor organic compounds,

methylene chloride
1,1,1 trichloroethane
1,1,2-trichloro 1,2,2-trifluoroethane (CFC-113)
trichlorofluoromethane (CFC-11)
dichlorodifluoromethane (CFC-12)
dichlorotetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC-115)
acetone
parachlorobenzotrifluoride (PCBTF)
cyclic, branched or linear, completely methylated siloxanes (VMS)

shall not be considered to be part of the coating.

(Amended December 20, 1995)

8-38-209 **Approved Emission Control System:** A system for reducing emissions to the atmosphere, consisting of an abatement device and a collection system, which achieves the abatement efficiency specified in the applicable standards at all times during the operation and meets the requirements of Regulation 2, Rule 1.

(Adopted June 15, 1994)

8-38-210 **Key System Operating Parameter:** An emission control system operating parameter, such as temperature, flow rate or pressure, that ensures operation of the abatement equipment within manufacturer specifications and compliance with the standards in Sections 8-38-301, and 302. (Adopted June 15, 1994)

8-38-300 **STANDARDS**

8-38-301 **Disc Coating Line Requirements:** Effective January 1, 1987, a person shall not operate a disc coating line unless the emissions of VOC from the disc coaters are controlled by an approved emission control system which has an overall collection and control efficiency of at least 85 percent on a mass basis and meets the requirements of Regulation 2, Rule 1. (Amended October 6, 1993; June 15, 1994)

8-38-302 **Disc Polishing Line Requirements:** Effective January 1, 1987, a person shall not operate a disc polishing line unless the emissions of VOC from the disc polishers are controlled by an approved emission control system which has an overall collection and control efficiency of at least 85 percent on a mass basis and meets the requirements of Regulation 2, Rule 1. (Amended October 6, 1993; June 15, 1994)

8-38-303 **Coating Mixing Operation Requirements:** Effective January 1, 1987, a person shall not operate a coating mixing operation unless vats are covered, except to add ingredients or take samples, with covers that satisfy the following requirements:

303.1 Covers extend at least 1/2 inch beyond the outer rim of the vat or are attached to the rim of the vat; and

303.2 Covers are maintained in good condition such that, when in place, they maintain contact with the rim for at least 90 percent of the circumference of the rim of the vat; and

303.3 Covers may have a slit to allow clearance for insertion of a mixer shaft. The slit shall be covered after insertion of the mixer shaft, except to allow safe clearance for the shaft.

303.4 Polyethylene or other non-permanent covers may be used provided that the requirements of subsections 8-38-303.1 through 303.3 are met.

8-38-304 **Deleted October 6, 1993**

8-38-400 **ADMINISTRATIVE REQUIREMENTS**

8-38-401 **Deleted October 6, 1993**

8-38-402 **Qualification for Exemption:** By March 1, 1986, persons seeking to claim exemption from the requirements of Section 8-38-301 and/or 302 pursuant to Sections 8-38-111 through 114 shall submit for APCO approval a description of the methods and/or limitations that will ensure qualification for exemption. Such description shall include a list of coatings or solvents and the VOC contents of each to qualify for the exemptions pursuant to Sections 8-38-111 or 112 and daily production records sufficient to qualify for the exemptions pursuant to Sections 8-38-113 or 114. (Amended October 6, 1993)

8-38-500 **MONITORING AND RECORDS**

8-38-501 **Approved Emission Control System, Recordkeeping Requirements:** Any person subject to Sections 301 and 302 shall:

501.1 Maintain a current list of coatings and solvent in use which states the VOC content of each.

501.2 Record on a daily basis the type and amount of coating and solvent used.

501.3 Record on a daily basis key system operating parameters. Key system operating parameters are those necessary to ensure compliance with VOC content of coating requirements, such as temperature, flow rate, and pressure, when applicable.

501.4 Retain and have such records available for inspection by the APCO for the previous 24-month period. (Adopted June 15, 1994)

8-38-502 **Burden of Proof:** Any person claiming an exemption pursuant to Sections 8-38-113, 114. or 115, must have information available, such as purchase orders or hazardous waste manifests, that would allow the APCO to verify facility usage.

(Adopted June 15, 1994)

8-38-600 **MANUAL OF PROCEDURES**

8-38-601 **Analysis of Samples:** Samples of VOC as specified in Sections 8-38-111 and 112 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 21 or 22.

8-38-602 **Determination of Emissions:** Emissions of volatile organic compounds as specified in Sections 8-38-113, 114, 301, 302 and subsection 304.7 shall be measured as prescribed by any of the following methods 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule.

(Adopted October 2, 1985; Amended June 15, 1994)

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REGULATION 8
ORGANIC COMPOUNDS
RULE 39
GASOLINE BULK PLANTS AND GASOLINE DELIVERY VEHICLES
(Adopted October 7, 1987)

8-39-100 GENERAL

8-39-101 Description: The purpose of this Rule is to limit emissions of organic compounds from gasoline transfer operations at gasoline bulk plants and delivery vehicles.
(Amended June 1, 1994)

8-39-110 Exemptions

8-39-111 Delivery Vehicle Exemptions: The requirements of Subsections 8-39-304.1 and 304.2 and 304.3 do not apply to gasoline delivery vehicles which deliver exclusively to :

111.1 Storage tanks installed prior to February 18, 1987, with an annual throughput of less than 227 cubic meters (60,000 gallons) which were not equipped with Phase I vapor recovery as of July 1, 1983.

111.2 Storage tanks with a storage capacity of less than 2.2 cubic meters (550 gallons) used primarily for the fueling of implements of husbandry as defined in Division 16, Chapter 1, of the California Vehicle Code.

111.3 Storage tanks where the APCO determines that Phase I vapor recovery is not feasible. (Amended June 1, 1994)

8-39-112 Delivery to Exempt Facilities: The requirements of Section 8-39-302 do not apply to bulk gasoline distribution facilities which load exclusively to gasoline delivery vehicles servicing stationary tanks which are exempt from Phase I as defined in Section 8-39-209 provided that submerged fill is used.

8-39-113 Tank Gauging and Inspection Exemption: Any tank may be opened for gauging or inspection when loading operations are not in progress provided that such tank is not pressurized.

8-39-114 Maintenance and Repair Exemption: The requirements of Section 8-39-306 shall not apply to spills and vapor leaks resulting from maintenance or repair operations provided proper operating practices are employed to minimize evaporation of gasoline into the atmosphere.

8-39-200 DEFINITIONS

8-39-201 CARB Certified Vapor Recovery System: A vapor recovery system which has been certified by the California Air Resources Board (CARB) pursuant to Section 41954 of the Health and Safety Code.

8-39-202 Gasoline Bulk Plant: A distributing facility which receives gasoline by tank truck, stores it in stationary tanks, and loads it into tank trucks for delivery to service stations or other distribution points.

8-39-203 Gasoline: Petroleum distillates used as motor fuel with a Reid vapor pressure greater than 4.0 pounds.

8-39-204 Leak Free: A liquid leak of less than four drops per minute excluding losses which occur upon disconnecting transfer fittings, provided such disconnect losses do not exceed 10 milliliters (0.34 fluid ounces) per disconnect, averaged over three disconnects.

8-39-205 Submerged Fill Pipe: Any discharge pipe or nozzle which meets either of the following conditions:

205.1 Where the tank is filled from the top, the end of the discharge pipe or nozzle must be totally submerged when the liquid level is 15 cm (6 in.) from the bottom of the tank.

205.2 Where the tank is filled from the side, the discharge pipe or nozzle must be totally submerged when the liquid level is 46 cm (18 in.) from the bottom of the tank.

8-39-206 **Switch Loading:** For the purpose of this Rule, switch loading is the loading of organic liquids with a Reid vapor pressure of less than 4.0 pounds into a delivery vehicle where the previous load was gasoline.

8-39-207 **Vapor Tight:** A leak of less than 100 percent of the lower explosive limit on a combustible gas detector measured at a distance of 2.5 cm (1 in.) from the source or no visible evidence of air entrainment in the sight glasses of liquid delivery hoses.

8-39-208 **Vapor Tight - Gasoline Cargo Tank:** A leak that does not exceed the standards specified in the CARB "Certification and Test Procedures for Vapor Recovery Systems on Gasoline Delivery Tanks."

8-39-209 **Deleted June 1, 1994**

8-39-210 **Organic Compound:** Any compound of carbon, excluding methane, carbon monoxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate.

(Adopted June 1, 1994)

8-39-300 **STANDARDS**

8-39-301 **Phase I Requirements:** A person shall not transfer or allow the transfer of gasoline from gasoline delivery vehicles into stationary tanks at gasoline bulk plants unless a CARB certified Phase I vapor recovery system is used.

8-39-302 **Gasoline Bulk Plant Limitations:** A person shall not load or permit the loading of gasoline into or out of a gasoline bulk plant unless a CARB certified vapor recovery system is properly connected and used. Such systems shall not emit into the atmosphere more than 60 grams of organic compounds per cubic meter (0.50 pounds per 1,000 gallons) of organic liquid loaded. Switch loading shall be subject to this standard. Where multiple processors are used, each processor shall be subject to this standard. (Amended June 1, 1994)

8-39-303 **Vapor Recovery System Requirements:** Vapor recovery systems installed at gasoline bulk plants shall be subject to CARB certification.

8-39-304 **Delivery Vehicle Requirements:** Gasoline delivery vehicles are subject to the following requirements:

304.1 Vapor Integrity Requirement: A person shall not operate, or allow the operation of, a gasoline delivery vehicle unless valid State of California decals, as required by Section 41962 of the Health and Safety Code which attest to the vapor integrity of the tank, are displayed.

304.2 Vapor Recovery Requirement: Any gasoline delivery vehicle loading at a facility subject to the requirements of Section 8-39-302 shall be equipped with and use a vapor recovery system.

304.3 Vapor Return Requirement: A person shall not load at a facility exempt under Section 8-39-112 if the preceeding load, or any portion thereof, was delivered to a storage tank equipped with Phase I.

304.4 Purging Requirement: A person shall not purge gasoline vapor from the tank of a delivery vehicle to the atmosphere.

8-39-305 **Equipment Maintenance:** All equipment associated with delivery and loading operations shall be maintained to be leak free, vapor tight and in good working order.

8-39-306 **Operating Practices:** Gasoline shall not be spilled, discarded in sewers, stored in open containers, or handled in any other manner that would result in evaporation to the atmosphere.

8-39-307 **Loading Practices:** Loading operations which use vapor processing equipment shall be operated in such a manner that the vapor processing capacity is not exceeded.

8-39-308 **Vapor Recovery System Requirements - Loading Rack:** The system shall be maintained and operated in a manner that prevents gauge pressure in the delivery tank from exceeding 46cm (18 in.) of water column during product loading.

8-39-400 **ADMINISTRATIVE REQUIREMENTS**

8-39-401 **Equipment Installation and Modification:** A person shall not install or modify stationary gasoline storage tanks greater than 1 cubic meter (260 gallons) or vapor recovery equipment, exclusive of repair, unless an authority to construct has been obtained pursuant to Section 301 of Regulation 2, Rule I.

8-39-402 **Implementation:** Any person who must install or modify vapor recovery equipment as required by Section 8-39-302 of this rule shall meet the following increments of progress:

(a) By April 1, 1988 submit an application to the APCO for Authorities to Construct.

(b) By April 1, 1989, be in final compliance.

8-39-403 **Stationary Tanks:** Any person who must install Phase I vapor recovery on stationary tanks at a gasoline dispensing facility as required by the March 4, 1987 amendments to Regulation 8, Rule 7 shall meet the following increments of progress:

(a) By September 1, 1989, submit an application to the APCO for Authorities to Construct.

(b) By March 1, 1990, be in final compliance.

(Adopted October 7, 1987; Amended December 2, 1987)

8-39-500 **MONITORING AND RECORDS**

8-39-501 **Burden of Proof:** The burden of proof of eligibility for exemption from this rule is on the applicant. Persons seeking such an exemption shall maintain adequate records and furnish them to the APCO upon request.

8-39-600 **MANUAL OF PROCEDURES**

8-39-601 **Emission Rate Determination (Vapor Processing Systems):** The means by which mass emission rates of vapor processing systems are measured are set forth in the Manual of Procedures, Volume IV, ST-34. (Amended June 1, 1994)

8-39-602 **Emission Rate Determination (Vapor Balance System):** The means for determining mass emission rates from vapor balance systems are set forth in the Manual of Procedures, Volume IV, ST-3.

8-39-603 **Vapor Recovery System Loading Pressure:** The means of determining gauge pressure in the delivery truck are set forth in the Manual of Procedures, Volume IV, ST-34. Amended June 1, 1994)

8-39-604 **Vapor Tight - Delivery Vehicles:** The means for determining vapor integrity for delivery vehicles are set forth in the Manual of Procedures, Volume IV, ST-33.

8-39-605 **Analysis of Samples:** Samples of gasoline as specified in Section 8-39-203 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 13.

REGULATION 8
ORGANIC COMPOUNDS
RULE 40
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REGULATION 8
ORGANIC COMPOUNDS
RULE 40
AERATION OF CONTAMINATED SOIL AND REMOVAL OF UNDERGROUND STORAGE TANKS

(Adopted July 16, 1986)

8-40-100 GENERAL

8-40-101 Description: The purpose of this Rule is to limit the emission of organic compounds from soil that has been contaminated by organic chemical or petroleum chemical leaks or spills, and to describe an acceptable procedure for controlling emissions from underground storage tanks during removal or replacement.
(Amended 2/15/89; 12/15/99)

8-40-110 Exemption, Storage Piles: Calculations of aeration volume under Section 8-40-204 shall not include storage piles that are covered per Section 8-40-305, nor shall they include active storage piles. (Amended December 15, 1999)

8-40-111 Exemption, Excavated Hole: The exposed surfaces of an excavated hole shall not be included in calculations of aerated volume under Section 8-40-204.

8-40-112 Exemption, Sampling: Contaminated soil exposed for the sole purpose of sampling shall not be considered to be aerated. Inactive storage piles may remain uncovered for no longer than one hour for soil sampling purposes.
(Amended December 12, 1999)

8-40-113 Exemption, Non-volatile Hydrocarbons: The requirements of all sections of this Rule shall not apply if the soil is contaminated solely by a known organic chemical or petroleum liquid and that chemical or liquid has an initial boiling point of 302°F or higher provided that the soil is not heated. (Amended February 15, 1989)

8-40-114 Exemption, Contaminated Soil Excavation During Organic Liquid Service Pipeline Leak Repairs: The requirements of Section 8-40-402 shall not apply if contaminated soil is being excavated in order to repair leaking organic liquid service pipelines and if no more than 5 cubic yards of contaminated soil are generated, and provided the requirements in Section 8-40-404 are satisfied.
(Adopted 2/15/89; Amended 12/15/99)

8-40-115 Exemption, Contaminated Soil Excavation Unrelated to Underground Storage Tank Activities: The requirements of Section 8-40-402 shall not apply where contaminated soil is discovered during excavations unrelated to underground storage tank activities, and provided the requirements in Section 8-40-405 are satisfied.
(Adopted 2/15/89; Amended 12/15/99)

8-40-116 Exemption, Small Volume: The provisions of this rule shall not apply to excavation or aeration projects where:

116.1 The total volume of contaminated soil is no more than 1 cubic yard, or

116.2 The total volume of contaminated soil is no more than 8 cubic yards and organic content does not exceed 500 ppmw as determined by the procedures in Sections 8-40-601 and 8-40-602. The exemption of this subsection may be applied to any single excavation site or facility no more than once in any 3 month period. (Adopted December 15, 1999)

8-40-117 Exemption, Accidental Spills: The provisions of this rule shall not apply to soil contaminated by accidental spillage of five gallons or less of liquid organic compounds. (Adopted December 15, 1999)

8-40-118 Exemption, Aeration Projects of Limited Impact: The requirements of Sections 8-40-403 and 8-40-405 shall not apply to any aeration project in which total project emissions of volatile organic compounds are less than 150 lbs, and total project emissions of toxic air contaminants are less than the limits listed in Table 2-1-316 in District Regulation 2, Rule 1. (Adopted December 15, 1999)

8-40-200 DEFINITIONS

8-40-201 **Active Storage Pile:** A storage pile to which soil is currently being added or from which soil is currently being removed. Activity must have occurred within one hour to be current. (Amended December 15, 1999)

8-40-202 **Aeration:** Exposure of excavated soil containing volatile organic compounds to the air. (Amended December 15, 1999)

8-40-203 **Aeration Depth:** The smaller of the following: the actual average depth of contaminated soil; or 0.15 meters (0.5 feet) multiplied by the daily frequency with which soil is turned. (Amended February 15, 1989)

8-40-204 **Aeration Volume:** The volume of soil being aerated shall be calculated as follows: the exposed surface area (in square feet or square meters) shall be multiplied by the aeration depth. The exposed surface area includes the pile of excavated soil unless the pile is covered per Section 8-40-305. (Amended 2/15/89; 12/15/99)

8-40-205 **Contaminated Soil:** Soil which has an organic content exceeding 50 ppmw as measured using the procedure in Section 8-40-602, or soil which registers an organic concentration greater than 50 ppmv (expressed as methane, C1) when measured using the procedure in Section 8-40-604. (Amended December 15, 1999)

8-40-206 **Organic Compound:** Any compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate.

8-40-207 **Organic Content:** The concentration of volatile organic compounds measured in the composite sample collected and analyzed using the procedures in Sections 8-40-601 and 8-40-602. (Amended December 15, 1999)

8-40-208 **Vapor Free:** The process of purging gases from a tank using dry ice to replace organic vapors with an inert atmosphere.

8-40-209 **Ventilation:** The process of purging gases from a tank by blowing or drawing another gas through the tank.

8-40-210 **Emergency Removal or Replacement or Excavation:** A removal or replacement of a tank or an excavation of contaminated soil carried out pursuant to an order of a state or local government agency issued because the contaminated soil poses an imminent threat to public health and safety. (Adopted 2/15/89; Amended 12/15/99)

8-40-211 **Organic Concentration:** The concentration of volatile organic compounds measured in ppmv (expressed as methane, C1) above the soil surface using the procedures in Section 8-40-604. (Adopted December 15, 1999)

8-40-212 **Organic Liquid Service:** The conveyance or storage of volatile organic compounds that are typically liquid at standard temperature and pressure, as applied to tanks and pipelines. This does not include septic tanks, sewer lines, storm water drainage, fresh water lines, natural gas lines, or electrical conduit. (Adopted December 15, 1999)

8-40-213 **Volatile Organic Compound (VOC):** Any organic compound, as described in Section 8-40-206, which would be emitted to the atmosphere. (Adopted December 15, 1999)

8-40-214 **Vapor Suppressant:** Any material demonstrated to be at least as effective as water spray at reducing VOC emissions from contaminated soil to the atmosphere. (Adopted December 15, 1999)

8-40-215 **Backfill:** Replacement of contaminated soil to an excavated pit below existing grade or to a engineered fill location below final grade performed in such a way as to minimize exposure of contaminated soil to the atmosphere. To constitute backfill, replacement of soil may be back into the original excavation, or any other final fill site located on the site where the original excavation occurred. Backfill does not include the use of contaminated soil in daily, intermediate, or final cover operations at solid waste disposal sites (as defined in Regulation 8-34-201). (Adopted December 15, 1999)

8-40-216 **Storage Pile:** A pile of excavated contaminated soil located above existing grade level. (Adopted December 15, 1999)

8-40-300 STANDARDS

8-40-301 **Uncontrolled Contaminated Soil Aeration:** Until June 1, 2000, a person shall not aerate contaminated soil at a rate in excess of that specified in Table 1 for the degree of organic content. The limitations in Table 1 shall apply to the entire facility and indicate the volume of contaminated soil that may be added, on any one day, to contaminated soil that is already aerating. These limited aeration rates shall also apply to the use of contaminated soil in daily, intermediate, or final cover operations at solid waste disposal sites (as defined in Regulation 8-34-201).

Table 1
Allowable Rate of Uncontrolled Aeration

ORGANIC CONTENT	RATE OF UNCONTROLLED AERATON	
ppm (weight)	Cubic meters/day	Cubic yards/day
< 50	Exempt	Exempt
50 - 99	459.0	600
100 - 499	91.8	120
500 - 999	45.9	60
1000 - 1999	22.9	30
2000 - 2999	11.5	15
3000 - 3999	7.6	10
4000 - 4999	5.7	8
> 5000	0.08	0.1

Effective June 1, 2000, a person shall not aerate contaminated soil except as provided in sections 8-40-304 through 306. This prohibition includes the use of contaminated soil in daily, intermediate, or final cover operations at solid waste disposal sites (as defined in Regulation 8-34-201). (Amended 2/15/89; 12/15/99)

8-40-302 **Controlled Contaminated Soil Aeration:** Until June 1, 2000, contaminated soil may be aerated at rates exceeding the limitations of 8-40-301 provided emissions of organic compounds to the atmosphere are reduced by at least 90% by weight.
(Amended December 15, 1999)

8-40-303 **Deleted December 15, 1999**

8-40-304 **Active Storage Piles:** Effective June 1, 2000, contaminated soil shall be kept visibly moist by water spray, treated with a vapor suppressant, or covered with continuous heavy duty plastic sheeting or other covering to minimize emissions of organic compounds to the atmosphere. Covering shall be in good condition, joined at the seams, and securely anchored to minimize headspace where vapors may accumulate. For any active storage pile, the surface area not covered by plastic sheeting or other covering shall not exceed 6,000 square feet.
(Adopted December 15, 1999)

8-40-305 **Inactive Storage Piles:** Effective June 1, 2000, contaminated soil shall be covered during periods of inactivity longer than one hour. The contaminated soil shall be covered with continuous heavy duty plastic sheeting or other covering to minimize emissions to the atmosphere. The covering shall be in good condition, joined at the seams, and securely anchored to minimize headspace where vapors may accumulate. (Adopted December 15, 1999)

8-40-306 **Contaminated Soil - Excavation and Removal:** Effective June 1, 2000, any person excavating and/or permanently removing contaminated soil shall adopt the following procedure:

306.1 During excavation, all exposed contaminated soil surfaces above existing grade level shall be kept visibly moist by water spray, treated with an approved vapor suppressant, or covered with continuous heavy duty plastic sheeting or other covering to minimize emissions of organic compounds to the atmosphere. The covering shall be in good condition, joined at the seams, and securely anchored to minimize headspace where vapors may accumulate.

306.2 All contaminated soils loaded into trucks or trailers for off site disposal or treatment shall be covered with continuous heavy duty plastic sheeting or other covering so as to minimize emissions to the atmosphere. The covering shall be in good condition, joined at the seams, and securely anchored to minimize headspace where vapors may accumulate.

306.3 All contaminated soil shall be stockpiled separately from soil which is not contaminated, unless emissions of VOC from the storage pile are minimized according to the provisions of this Rule.

306.4 Within 45 days of excavation, or within 90 days for soil of organic content less than 500 ppmw as determined by the procedures in Sections 8-40-601 and 8-40-602, the following shall take place:

4.1 all contaminated soil shall be backfilled and covered with at least 6 inches of uncontaminated soil, or

4.2 all contaminated soil shall be removed from the site, or

4.3 treatment to remove the contamination shall be initiated.

306.5 Treatment of contaminated soil to remove the contamination shall be subject to all applicable District Rules and Regulations.

306.6 During backfilling, all exposed contaminated soil surfaces shall be kept visibly moist by water spray, or treated with an approved vapor suppressant, or covered with continuous heavy duty plastic sheeting or other covering to minimize emissions of organic compounds to the atmosphere. During periods of inactivity longer than 12 hours, backfilled contaminated soil shall be covered with at least 6 inches of uncontaminated soil, or covered with continuous heavy duty plastic sheeting or other covering to minimize emissions of organic compounds to the atmosphere. The covering shall be in good condition, joined at the seams, and securely anchored to minimize headspace where vapors may accumulate. (Adopted December 15, 1999)

8-40-310 Underground Storage Tanks - Removal or Replacement: Any person wishing to permanently remove or replace an underground storage tank which previously contained organic compounds shall follow the following procedure:

310.1 All piping shall be drained or flushed into the tank or other container.

310.2 All liquids and sludges shall be removed, to the extent possible, from the tank. A hand pump shall be used to remove the bottom few inches of product if necessary.

310.3 Vapors shall be removed from the tank using one of the following three methods:

3.1 The tank may be filled with water, displacing vapors and hydrocarbon liquids.

3.2 Vapor freeing.

3.3 Ventilation.

310.4 Effective June 1, 2000, all soils disturbed and/or excavated as part of the tank removal shall be subject to the requirements of Sections 8-40-301 through 306, unless the soil has been determined to be not contaminated by measurement of organic content using the procedures in Section 8-40-601 and 8-40-602. (Amended 2/15/89; 6/15/94; 12/15/99)

8-40-311 Vapor Freeing: No person shall vapor free an underground storage tank of 250 gallons or greater capacity, unless emissions of organic compounds to the atmosphere are reduced by at least 90% by weight. The emission control system shall be operated until the concentration of organic compounds in the tank is less than 5,000 ppm expressed as methane. (Amended December 15, 1999)

8-40-312 Ventilation: No person shall ventilate an underground storage tank of 250 gallons or greater capacity, unless emissions of organic compounds to the atmosphere are reduced by at least 90% by weight. The emission control system shall be operated until the concentration of organic compounds in the tank is less than 5,000 ppm expressed as methane. (Amended December 15, 1999)

8-40-400 ADMINISTRATIVE REQUIREMENTS

8-40-401 **Reporting, Removal or Replacement of Tanks**: The person responsible for the removal or replacement of tanks which are subject to the provisions of Section 8-40-310 shall provide written notice to the APCO of intention to remove or replace tanks. The written notice shall be postmarked at least 5 days prior to commencement of such removal or replacement. In the case of emergency removal or replacement of tanks, notice shall be provided as early as possible prior to the commencement of such emergency removal or replacement, to be followed by written verification not later than 30 working days after the removal or replacement is completed. The written notice of intention shall include:

401.1 Names and addresses of persons performing and responsible for the tank removal or replacement.

401.2 Location of site at which tank removal or replacement will occur.

401.3 Scheduled starting date of tank removal or replacement. The scheduled starting date may be delayed for no more than 5 working days, provided the APCO is notified by telephone as early as possible prior to the new starting date.

401.4 Procedures to be employed to meet the requirements of Sections 8-40-310.

401.5 If applicable, name, title and authority of the state or local government representative who has ordered a tank removal or replacement which is subject to emergency procedures.

401.6 Procedures to be employed to meet the requirements of Sections 8-40-301 through 306. (Adopted 2/15/89; Amended 12/15/99)

8-40-402 **Reporting, Excavation of Contaminated Soil**: The person responsible for the excavation of known contaminated soil subject to the provisions of Sections 8-40-301 through 8-40-306 shall provide written notice to the APCO of intention to excavate. The written notice shall be postmarked at least 5 days prior to commencement of such excavation. In the case of emergency excavations, notice shall be provided as early as possible prior to the commencement of such emergency excavation, to be followed by written verification not later than 30 working days after excavation is completed. Written notice of intention to excavate may be submitted to the APCO at the same time written notice of intention to remove or replace tanks is submitted provided that such notification precedes the commencement of either tank removal or replacement or contaminated soil excavation by at least 5 days as indicated by postmark. The written notice of intention shall include:

402.1 Names and addresses of persons performing and responsible for excavation.

402.2 Location of site at which excavation will occur.

402.3 Scheduled starting date of excavation. The scheduled starting date may be delayed for no more than 5 working days, provided the APCO is notified by telephone as early as possible prior to the new starting date.

402.4 Procedures to be employed to meet the requirements of Sections 8-40-301 through 306.

402.5 If applicable, name, title and authority of the state or local government representative who has ordered an excavation which is subject to emergency procedures.

402.6 Estimated quantity of contaminated soil to be excavated.

402.7 Estimated average organic content of contaminated soil.

(Adopted 2/15/89; Amended 12/15/99)

8-40-403 **Reporting, Aeration of Soil**: The person responsible for aeration of any soil shall provide written notice to the APCO of intention to aerate soil, with the following information. The written notice shall be postmarked at least 5 days prior to commencement of such excavation. The District shall again be notified within 24 hours of a change in one or more of the following parameters:

403.1 Estimated total quantity of soil to be aerated

403.2 Estimated quantity of soil to be aerated per day

403.3 Estimated average organic content of soil

403.4 Chemical composition of organic compounds (i.e., gasoline, methylene chloride, etc.)

403.5 A basis on which these estimates were derived (soil analysis test reports, etc.)

403.6 Names and addresses of persons performing and responsible for the aeration project.

403.7 Location of site at which the aeration project will occur.

(Amended, Renumbered 2/15/89; Amended 12/15/99)

8-40-404 Reporting, Contaminated Soil Excavation During Organic Liquid Service Pipeline Leak Repairs: The person responsible for the excavation of no more than 5 cubic yards of contaminated soil generated by an organic liquid service pipeline leak repair shall provide written notice to the APCO as early as possible, but not later than 30~~10~~ working days, after excavation is completed. The written notice shall include:

404.1 Names and addresses of persons performing and responsible for excavation

404.2 Location of site at which excavation occurred.

404.3 Date of excavation.

404.4 Quantity of contaminated soil excavated.

404.5 Estimated average organic content of contaminated soil.

404.6 Procedures to be employed to meet the requirements of Sections 8-40-301 through 306. (Adopted 2/15/89; Amended 12/15/99)

8-40-405 Reporting, Contaminated Soil Excavations Unrelated to Underground Storage Tank Activities: The person responsible for contaminated soil excavations unrelated to underground storage tank activities where contaminated soil is discovered shall provide notice as early as possible upon detection of such contaminated soil, to be followed by written verification not later than 30 working days after excavation is completed. The written verification shall include:

405.1 Names and addresses of persons performing and responsible for excavation.

405.2 Location of site at which excavation occurred.

405.3 Date of excavation.

405.4 Quantity of contaminated soil excavated.

405.5 Estimated average organic content of contaminated soil.

405.6 Procedures to be employed to meet the requirements of Sections 8-40-301 through 306. (Adopted 2/15/89; Amended 12/15/99)

8-40-600 MANUAL OF PROCEDURES

8-40-601 Contaminated Soil Sampling: Composite samples shall be collected and analyzed for-excavated contaminated soil as follows:

601.1 Until June 1, 2000, for every 50 cubic yards of excavated contaminated soil to be aerated as per Table 1 in Section 8-40-301 Aat least one composite sample shall be collected from each storage pile within 12 hours of excavation.

601.2 For excavation projects seeking exemption under the provisions of Section 8-40-116.2, at least one composite sample shall be collected and analyzed.

601.3 For excavation projects subject to Sections 8-40-306.4 (90 day limit only) or 8-40-310.4, involving 250 cubic yards of contaminated soil or less, at least one composite sample shall be collected an analyzed for every 50 cubic yards of excavated contaminated soil.

601.4 For excavation projects subject to Sections 8-40-306.4 (90 day limit only) or 8-40-310.4, involving more than 250 cubic yards of contaminated soil, at least one composite sample shall be collected and analyzed for every 100 cubic yards of excavated contaminated soil.

601.5 Each composite sample shall consist of four separate soil samples taken using the procedures described below. The soil samples shall remain separate until they are combined in the laboratory just prior to analysis.

601.6 Each pile for which a composite sample is required shall be considered to have four equal sectors. One sample shall be taken from the center of each sector. Samples shall be taken from at least twelve inches below the surface of the pile. Samples shall be taken using one of the following methods:

6.1 Samples shall be taken using a driven-tube type sampler, capped and sealed with inert materials, and extruded in the lab in order to reduce the loss of volatile materials; or

6.2 Samples shall be taken using a clean brass tube (at least twelve inches long) driven into the soil with a suitable instrument. The ends of the brass tube shall then be covered with aluminum foil, then plastic end caps, and finally wrapped with a suitable tape. The samples shall then be immediately placed on ice, or dry ice, for transport to a laboratory.

(Amended 2/15/89; 12/15/99)

8-40-602 **Measurement of Organic Content:** Organic content of soil shall be determined by EPA Reference Methods 8015B and 8021B or any method determined to be equivalent by the United States Environmental Protection Agency and approved in writing by the APCO or designee. (Amended 2/15/89; 10/6/93; 12/15/99)

8-40-603 **Determination of Emissions:** Emissions of organic compounds as specified in Sections 8-40-302, 8-40-311 and 8-40-312 shall be measured as prescribed by any of the following methods: 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule.

(Amended 2/15/99; 6/15/94; 12/15/99)

8-40-604 **Measurement of Organic Concentration:** Organic concentration as specified in Section 8-40-205 shall be measured at a distance of three inches from the surface of the excavated soil with an organic vapor analyzer complying with 40 CFR Part 60 Appendix A, EPA Method 21 Section 3, "Determination of Volatile Organic Compound Leaks, Monitoring Instrument Specifications," or any method determined to be equivalent by the United States Environmental Protection Agency and approved in writing by the APCO or designee. For the purpose of determining contamination, the soil surface of the excavated soil pile may be disturbed to obtain a measurement.

(Adopted December 15, 1999)

8-40-605 **Analysis of Samples, Initial Boiling Point:** Samples of organic compounds shall be analyzed by ASTM D-1078-93 for the determination of initial boiling point as specified in Section 8-40-113. (Adopted December 15, 1999)

REGULATION 8
ORGANIC COMPOUNDS
RULE 41
VEGETABLE OIL MANUFACTURING OPERATIONS

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REGULATION 8
ORGANIC COMPOUNDS
RULE 41
VEGETABLE OIL MANUFACTURING OPERATIONS
(Adopted December 17, 1986)

8-41-100 GENERAL

8-41-101 **Description:** The purpose of this Rule is to limit emissions of precursor organic compounds from the vegetable oil solvent extraction operations.

8-41-110 **Exemption, Laboratory and Experimental Operations:** The requirements of this Rule shall not apply to equipment used exclusively for research, laboratory analysis or determination of product quality.

8-41-111 **Exemption, Startup and Shutdown:** The requirements of this Rule shall not apply to the solvent extraction plant during the first 24 hours of startup and the final 24 hours of shutdown.

8-41-200 DEFINITIONS

8- 1-209 **Organic Compound, Precursor:** Any organic compound as defined in 1- 233 excepting the non-precursor organic compounds, 1-234.

8-41-201 **Organic Compounds:** Any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonates, and methane

8-41-202 **Vegetable Oil Plant:** Any facility engaged in the extraction or refining of vegetable oil.

8-41-203 **Solvent Extraction:** Removal of vegetable oil from the seed or bean using a solvent in a contact system.

8-41-204 **Desolventizer-Toaster:** A process unit in which steam and air are forced through and across the meal to volatilize the solvent.

8-41-205 **Equipment in Organic Service:** Any pump, valve, pressure relief valve, sight glass sample connection, open-ended valve, or connector in VOC service.

8-41-206 **Repaired:** Equipment is adjusted or otherwise altered to maintain proper operating characteristic, including freedom from leakage.

8-41-207 **Leaking Equipment:** Any equipment from which precursor organic compounds can be detected or observed to be leaking, or producing a concentration in air exceeding 10,000 ppm (expressed as methane) one centimeter from the leak.

8-41-208 **Mineral Oil Scrubber:** A packed tower using mineral oil as an adsorbent for the extractant solvent.

8-41-209 **Meal:** Spent seed flakes containing adsorbed solvent after extraction.

8-41-210 **Tumbler or Cooler:** A device which reduces the temperature or moisture from the meal.

8-41-211 **Conveyor:** Any device which removes the meal by a mechanical means from one location to another location.

8-41-300 STANDARDS

8-41-301 **Extractor, Desolventizer-Toaster:** A person shall not operate any extractor or desolventizer-toaster that emits more than 6.8 kg (15 lb) of organic compounds per day (excluding the meal discharge), unless such emissions are controlled by one of the following:

301.1 A condenser and mineral oil scrubber which captures and reduces precursor organic compounds by at least 90 per cent by weight.

301.2 An emission control device, approved by the APCO, which captures and reduces precursor organic compounds by at least 90 per cent by weight.

8-41-302 **Conveyor, Desolventizer-Toaster:** A person shall not operate a vegetable oil plant unless the desolventizer-toaster discharge conveyor prior to the cooler is vented to a mineral oil scrubber with a precursor organic compound capture and control efficiency of at least 90 per cent by weight.

8-41-303 **Equipment in Organic Service:** Each calendar month, a person operating a vegetable oil plant shall inspect all equipment for any indication of gaseous or liquid leakage of organic compounds. If the concentration of precursor organic compounds measured one cm. from any leak in such equipment exceeds 10,000 ppm (expressed as methane), or if leaks are visible, the leaking equipment shall be repaired within 10 days.

8-41-400 **ADMINISTRATIVE REQUIREMENTS:**

8-41-401 **Compliance Schedule:** The owner or operator subject to this Rule shall comply with the following increments of progress:

401.1 By January 2, 1987 submit to the APCO a plan describing the methods to be used to comply with the applicable requirements.

401.2 By March 1, 1987 submit a completed application for an Authority to Construct if needed.

401.3 By August 1, 1987 be in full compliance with requirements of this Rule.

8-41-500 **MONITORING AND RECORDS**

8-41-501 **Portable Hydrocarbon Detector:** Any instrument used for the measurement of organic compounds shall be a gas detector that meets the specifications and performance criteria of and has been calibrated in accordance with EPA Reference Method 21 (40 CFR 60, Appendix A). (Amended June 1, 1994)

8-41-502 **Record Keeping:** The owner or operator of a vegetable oil plant shall be subject to the following requirements:

502.1 A readily visible identification, in the form of a weatherproof tag shall be attached to the leaking equipment. The identification may be removed upon repair.

502.2 The leaking equipment shall be repaired with an initial attempt as soon as possible but no later than 10 calendar days after it is detected.

502.3 When a leak is detected, the owner or operator shall record the date of detection and the date of repair. The log record of leak detection and repair shall be maintained for 2 years at the facility and be made available to a District representative upon request.

8-41-503 **Air Pollution Abatement Equipment, Recordkeeping Requirements:** Any person operating air pollution abatement equipment to comply with Section 8-14-301, and 302 shall record on a daily basis key system operating parameters to demonstrate continuous operation and compliance of the air pollution abatement equipment during periods of emission producing activities. Key system operating parameters are those necessary to ensure compliance, such as temperature, flow rates, and pressure. (Adopted June 1, 1994)

8-41-600 MANUAL OF PROCEDURES

8-41-601 Determination of Emissions: Emissions of organic compounds as specified in 8-41-301 and 8-41-303 shall be measured by any of the following methods 1) BAAQMD Manual of Procedures, Volume IV ST-7, 2) EPA Method 25, 3) EPA Method 25A. A source shall be considered in violation if the VOC emissions measured by any of the test methods exceed the standards of this rule.

(Amended June 1, 1994)

8-41-602 Inspection Procedures: For the purposes of Section 8-41-303, leaks shall be measured using a portable gas detector as prescribed in EPA Reference Method 21 (40 CFR 60, Appendix A). (Adopted June 1, 1994)

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LARGE COMMERCIAL BREAD BAKERIES

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REGULATION 8
ORGANIC COMPOUNDS
RULE 42
LARGE COMMERCIAL BREAD BAKERIES
(Adopted September 20, 1989)

8-42-100 GENERAL

8-42-101 Description: The purpose of this rule is to limit the emission of precursor organic compounds from bread ovens at large commercial bread bakeries.

8-42-110 Exemption, Small Bakeries: Except for Section 8-42-502, this rule shall not apply to bakeries whose total production of bread, buns, and rolls per operating day is less than 45,450 kg (100,000 pounds), averaged over all operating days in any one month. (Amended June 1, 1994)

8-42-111 Exemption, Low Emitting Ovens: Ovens demonstrated to the satisfaction of the APCO to emit less than 68.2 kg (150 pounds) of ethanol per operating day averaged over a period of one year shall be exempt from the requirements of Section 8-42-301.

8-42-112 Exemption, Existing Ovens: The requirements of Section 8-42-303 shall not apply to ovens, which commenced operation prior to January 1, 1988 and which are demonstrated to the satisfaction of the APCO to emit less than 113.7 kg (250 pounds) of ethanol per operating day, averaged over a period of one year.

8-42-113 Exemption, Miscellaneous Bakery Products: This rule does not apply to equipment used exclusively for the baking of bakery products other than bread, buns, and rolls. Such products include, but are not limited to, muffins, croutons, breadsticks, and crackers.

8-42-114 Exemption, Chemically Leavened Products: This rule does not apply to equipment used exclusively for the baking of bakery products leavened chemically in the absence of yeast.

8-42-200 DEFINITIONS

8-42-201 Approved Emission Control System: A system for reducing emissions of precursor organic compounds to the atmosphere consisting of a control device, which has been approved by the APCO and which satisfies the following conditions:

201.1 The control device shall achieve the control efficiency specified in the applicable standards section at all times during normal operation of the equipment being controlled.

201.2 The collection system shall vent all exhaust from the oven stack or stacks to the control device during normal operation.

8-42-202 Baseline Emissions: The average amount of precursor organic compounds emitted per operating day from an oven between January 1, 1988 and December 31, 1988. Emissions shall be calculated in accordance with Section 8-42-602.

8-42-203 Bread: A perishable foodstuff prepared from a dough whose primary ingredients are flour, sugar, salt, water, and yeast and which is baked into loaves, buns, or rolls.

8-42-204 Fermentation Time: Elapsed time between adding yeast to the dough or sponge and placing the loaves into the oven, expressed in hours.

8-42-205 Large Commercial Bread Bakery: Any bakery producing more than 45,454 kg (100,000 pounds) of breads, buns, and rolls per day.

8-42-206 Leaven: To raise a dough by causing gas to thoroughly permeate it.

8-42-207 Yeast Percentage: Pounds of yeast per hundred pounds of total recipe flour, expressed as a percentage.

8-42-208 **Key System Operating Parameter:** An emission control system operating parameter, such as temperature, flow rate or pressure, that ensures operation of the abatement equipment within manufacturer specifications and compliance with the standards in Sections 8-42-302, and 303. (Adopted June 1, 1994)

8-42-300 **STANDARDS**

8-42-301 **New and Modified Bakery Ovens:** Effective January 1, 1989, a person subject to this rule shall not operate the following equipment unless the requirements of Section 8-42-302 are met:

301.1 Any newly constructed oven commencing operation after January 1, 1989.

301.2 Any newly constructed oven replacing an existing oven and commencing operation after January 1, 1989.

301.3 Any existing oven which has been modified, with modifications completed after January 1, 1989, at a cost exceeding 50% of replacement cost of the oven.

301.4 Any oven with a change in production after January 1, 1989, resulting in an emission increase, averaged over a 30 day period, of 68.2 kg (150 pounds) per operating day above the baseline emissions.

8-42-302 **Emission Control Requirements, New and Modified Ovens:** All new and modified ovens shall be required to vent all emissions to an approved emission control system capable of reducing emissions of precursor organic compounds by 90% on a mass basis.

8-42-303 **Emission Control Requirements, Existing Ovens:** Effective January 1, 1992, all existing ovens which commenced operation prior to January 1, 1989, shall be required to vent emissions to a control system meeting the following standards:

303.1 Emission collection system shall capture all emissions of precursor organic compounds from all oven stacks.

303.2 Collected emissions shall be vented to an approved emission control device which has a destruction efficiency of at least 90% on a mass basis.

8-42-304 **Delayed Compliance, Existing Ovens:** In lieu of complying with the requirements of Section 8-42-303, an applicant may elect to replace those ovens subject to Section 8-42-303 with new ovens meeting the requirements of Section 8-42-302 by January 1, 1994. Such election must be made by January 1, 1991, subject to approval of the APCO. In approving such an election, the APCO may require the posting of a bond and may impose permit conditions on the existing subject ovens in order to assure compliance with the January 1, 1994 installation of new ovens.

8-42-400 **ADMINISTRATIVE REQUIREMENTS**

8-42-401 **Compliance Schedule:** Any person subject to the requirements of Section 8-42-303 of this rule shall comply with the following increments of progress:

401.1 By January 1, 1990: Submit a status report to the APCO stating the options under consideration for retrofitting or replacing existing ovens.

401.2 By January 1, 1991: Submit a plan describing the methods proposed to be used to comply with 8-42-303.

401.3 By March 31, 1991: Submit a completed application for any Authority to Construct necessary to comply with these requirements.

401.4 By January 1, 1992: Be in full compliance with all applicable requirements.

8-42-402 **Delayed Compliance Schedule:** Any person seeking to comply with this rule under Section 8-42-304 shall comply with the following increments of progress:

402.1 By January 1, 1991: Submit a plan describing the methods proposed to be used to comply with 8-42-302.

402.2 By January 1, 1992: Submit to the APCO a status report on the purchase of the new ovens.

402.3 By January 1, 1993: Submit a completed application for any Authority to Construct necessary to comply with these requirements.

402.4 By January 1, 1994: Be in full compliance with all applicable requirements.

8-42-500 **MONITORING AND RECORDS**

8-42-501 **Approved Emission Control System, Recordkeeping Requirements:** Any person operating air pollution abatement equipment to comply with Section 8-42-302, or 303 shall record key system operating parameters on a daily basis (Adopted June 1, 1994)

8-42-502 **Burden of Proof:** Any person claiming the small bakery exemption per Section 8-20-110 must have information available, such as production records, that would allow the APCO to verify this exemption. (Adopted June 1, 1994)

8-42-600 **MANUAL OF PROCEDURES**

8-42-601 **Determination of Emissions:** Emissions of organics shall be measured as prescribed in the Manual of Procedures, Source Test Procedure ST-32.

8-42-602 **Emission Calculation Procedures:** If emission measurements conducted in accordance with Section 8-42-601 are not available for a specific bakery product, oven emissions shall be calculated using the emission factors in Table I.

TABLE I

Yt*	Pounds VOC/ton bakery product	Yt*	Pounds VOC/ton bakery product
1.0	.8488	16.0	7.5176
1.5	1.0711	16.5	7.7399
2.0	1.2934	17.0	7.9622
2.5	1.5157	17.5	8.1845
3.0	1.7380	18.0	8.4068
3.5	1.9603	18.5	8.6291
4.0	2.1826	19.0	8.8514
4.5	2.4049	19.5	9.0737
5.0	2.6272	20.0	9.2959
5.5	2.8495	20.5	9.5182
6.0	3.0718	21.0	9.7405
6.5	3.2941	21.5	9.9628
7.0	3.5163	22.0	10.1851
7.5	3.7386	22.5	10.4074
8.0	3.9609	23.0	10.6297
8.5	4.1832	23.5	10.8520
9.0	4.4055	24.0	11.0743
9.5	4.6278	24.5	11.2966
10.0	4.8501	25.0	11.5189
10.5	5.0724	25.5	11.7412
11.0	5.2947	26.0	11.9635

11.5	5.5170	26.5	12.1857
12.0	5.7393	27.0	12.4080
12.5	5.9616	27.5	12.6303
13.0	6.1839	28.0	12.8526
13.5	6.4061	28.5	13.0749
14.0	6.6284	29.0	13.2972
14.5	6.8507	29.5	13.5195
15.0	7.0730	30.0	13.7418
15.5	7.2953		

*Yt = (yeast percentage) * (fermentation time).
If yeast is added in 2 steps, Yt = [(initial yeast percentage) * (total fermentation time) + (remaining yeast percentage) * (remaining fermentation time)].

REGULATION 8
ORGANIC COMPOUNDS
RULE 43
SURFACE PREPARATION AND COATING OF MARINE VESSELS

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REGULATION 8
ORGANIC COMPOUNDS
RULE 43
SURFACE PREPARATION AND COATING OF MARINE VESSELS

(Adopted November 23, 1988)

8-43-100 GENERAL

8-43-101 Description: The purpose of this Rule is to limit the emission of volatile organic compounds from the surface preparation and coating of marine vessels, components and structures intended for exposure to a marine environment, including oil drilling platforms and navigational aids.

(Amended October 16, 2002)

8-43-110 Exemption, Pleasure Craft and Fishing Vessels: The provisions of this Rule shall not apply to the coating of pleasure craft or commercial fishing vessels using coatings purchased in containers of one gallon or less.

8-43-111 Exemption, Low Usage Coatings: The requirements of Section 8-43-301 and 302 shall not apply to any coating used in volumes less than 75.7 l (20 gal) in any one calendar year, provided the requirements of Section 8-43-401 are satisfied.

8-43-112 Exemption, Aerosol Cans: The provisions of this Rule shall not apply to coating operations employing hand held aerosol cans. Application of coating from aerosol cans is subject to the provisions of Regulation 8, Rule 49 or to the California Air Resources Board aerosol coating product regulation found in Title 17 of the California Code of Regulations, beginning at Section 94520.

(Amended 6/20/90; 10/16/02)

8-43-113 Exemption, Solid Film Lubricant: The provisions of this Rule shall not apply to any solid film lubricant.

8-43-114 Exemption, Touch-up: The provisions of this Rule shall not apply to Touch-up operations.

8-43-115 Exemption, Aircraft and Aerospace Vehicles: The provisions of this Rule shall not apply to the coating of aircraft and aerospace vehicles subject to Rule 29 of Regulation 8.

8-43-116 Exemption, Architectural Coatings: The provisions of this Rule shall not apply to bridges, piers or other stationary structures which require architectural coatings subject to Regulation 8, Rule 3.

(Amended October 6, 1993)

8-43-117 Exemption, Aluminum Hull Coatings: The provisions of this Rule shall not apply to antifoulant coating used on aluminum hulls, provided records are maintained as specified in Section 8-43-501.

8-43-118 Deleted October 16, 2002

8-43-119 Exemption, Historic Vessels: The brush or roller application of up to 55 gallons of coatings per year to historic vessels by a public museum or park is exempt from the VOC limits of Sections 8-43-301 and 302, provided records are maintained as specified in Section 8-43-501.

(Adopted April 18, 2001)

8-43-120 Limited Exemption, Specific Surface Preparation Operations: The requirements of Section 8-43-321 shall not apply to surface preparation solvent used on (i) surfaces prepared for adhesive bonding of dissimilar substrates, (ii) gears, turbines, turbine generators and associated housings with faying or working surfaces where surfaces are required to undergo material testing or application of transfer dyes, (iii) electrical and electronic components, or (iv) cleaning associated with research and development operations; performance testing to determine coating, adhesive or ink performance; or testing for quality control or quality assurance purposes.

(Adopted October 16, 2002)

8-43-121 Limited Exemption, Military Components: The requirements of Section 8-43-321 shall not apply to the surface preparation of any military component for which a

contract exists that specifies the use of an organic solvent that does not comply with the standards in Section 8-43-321, provided that contract has been entered into prior to December 1, 2005.

(Adopted October 16, 2002)

8-43-200 DEFINITIONS

8-43-201 **Air-Dried Coating**: Any coating which is not heated above 90°C (194°F) for the purpose of curing or drying.

8-43-202 **Baked Coating**: Any coating which is cured or dried in an oven where the oven air temperature exceeds 90°C (194°F).

8-43-203 **Coating Operation:** The sum of all steps involved in the application, drying and/or curing of surface coatings.

8-43-204 **Antifoulant Coating**: Any coating applied to the underwater portion of a vessel to prevent or reduce the attachment of biological organisms and registered with the Environmental Protection Agency (EPA) as a pesticide.

8-43-205 **Heat-Resistant Coating**: Any coating which, during normal use, must withstand temperatures of at least 80°C (175°F).

8-43-206 **High-Gloss Coating**: Any coating which achieves at least 85% reflectance on a 60^0 meter when tested by ASTM Method D-523.

8-43-207 **High-Temperature Coating**: Any coating which, during normal use, must withstand temperatures of at least 426°C (800°F).

8-43-208 **Inorganic Zinc Coating**: A coating derived from zinc dust incorporated into an inorganic silicate binder for the express purpose of providing corrosion protection.

8-43-209 **Navigational Aids**: Buoys or other Coast Guard waterway markers. For the purposes of subsection 8-43-302.6, specialty coating limit applies only to the re-coating of in-use navigational aids done at the usage site to be returned immediately to the water.

8-43-210 **Pleasure Craft**: Privately owned vessels used for non-commercial purposes.

8-43-211 **Pretreatment Wash Primer**: Any coating which contains a minimum of 1/2% acid by weight applied directly to bare metal surfaces and is necessary to provide surface etching.

8-43-212 **Deleted October 6, 1993**

8-43-213 **Solid Film Lubricant**: A very thin coating consisting of an organic binder system containing as its chief pigment material one or more of the following: molybdenum disulfide, graphite, polytetrafluoroethylene (PTFE) or other solids that act as a dry lubricant between meeting surfaces.

8-43-214 **Touch-up**: That portion of the surface preparation or coating operation which is incidental to the main coating process but necessary to cover minor imperfections or mechanical damage incurred prior to intended use.

(Amended October 16, 2002)

8-43-215 **Volatile Organic Compounds**: Any organic compound (excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate) which would be emitted during use, application, curing or drying of a solvent or surface coating.

215.1 For purposes of calculating VOC content of a coating, any water or any of the following non-precursor organic compounds shall not be considered to be part of the coating:

acetone
methyl acetate
parachlorobenzotrifluoride (PCBTF)
cyclic, branched or linear, completely methylated siloxanes (VMS)

215.2 For the purposes of calculating the VOC content of a surface preparation or cleaning solvent, any water or the non-precursor organic compounds listed in subsection 8-43-215.1, above, shall be considered part of the volume of solvent but shall not be considered part of the VOC content of the solvent.

(Amended12/20/95; 10/16/02)

8-43-216 **Undersea Weapons System:** All components of a weapons system that is launched or fired undersea.

8-43-217 **Military Exterior Topcoat:** An exterior topcoat applied to military vessels, including U.S. Coast Guard vessels subject to specified chemical, biological, and radiological washdown requirements.

8-43-218 **Specialty Interior Coating:** An extreme performance coating used on interior surfaces aboard ships which has the fire retardant properties and has a toxicity index of less than 0.03 in addition to existing military physical and performance requirements.

8-43-219 **Wire Spray Aluminum:** A process of applying a molten aluminum coating to a steel substrate using an oxy-fuel combustion spray gun.

8-43-220 **Sealant Coat for Wire Spray Aluminum:** A coating approximately one mil thick of epoxy, thinned one for one with appropriate solvent.

8-43-221 **Special Marking Coating:** Coating used specifically for items such as flight decks, ships numbers and other demarcations for safety and other purposes.

8-43-222 **Tack Coat:** An epoxy coat up to two mils thick applied to allow adhesion to a subsequent coating where the existing epoxy coating has aged beyond the time limit specified by the manufacturer for the application of the next coat.

8-43-223 **Repair and Maintenance of Commercial Vessels:** The partial recoating of in-use non-U.S. Navy vessels over existing thermoplastic coatings.

8-43-224 **Thermoplastic Coating:** A single package lacquer drying coating where the resin would become pliable with the application of heat such as vinyl, chlorinated rubber or bituminous.

8-43-225 **Extreme High-Gloss Coating:** Any coating which achieves at least 95% reflectance on a 60° meter when tested by ASTM Method D-523.

8-43-226 **Low Activation Interior Coating:** A special composition coating used on interior surfaces aboard ships to minimize the activation of pigments on painted surfaces within a radiation environment.

8-43-227 **Key System Operating Parameter**: An air pollution abatement equipment operating parameter, such as temperature, flow rate or pressure, that ensures operation of the abatement equipment within manufacturer specifications and compliance with the standards in Sections 8-43-301, 302, 320 and/or 321.

(Adopted 6/1/94; 10/16/02)

8-43-228 **Approved Emission Control System:** A system for reducing emissions to the atmosphere, consisting of an abatement device and a collection system, which achieves the abatement efficiency specified in the applicable standards at all times during the operation and meets the requirements of Regulation 2, Rule 1.

(Adopted October 16, 2002)

8-43-229 **Surface Preparation:** The cleaning of marine vessels, components and structures subject to a marine environment prior to coating, further treatment, sale, or intended use. Solvent cleaning of marine components subject to and in compliance with Regulation 8, Rule 16: Solvent Cleaning Operations, is not subject to the surface preparation standards in this Rule.

(Adopted October 16, 2002)

8-43-230 **Electrical and Electronic Components**: Components and assemblies of components that generate, convert, transmit, or modify electrical energy. Electrical and electronic components include, but are not limited to, wires, windings, stators, rotors, magnets, contacts, relays, printed circuit boards, printed wire assemblies, wiring boards, integrated circuits, resistors, capacitors and transistors. Cabinets in which electrical and electronic components are housed are not considered electrical and electronic components.

(Adopted October 16, 2002)

8-43-300 STANDARDS

8-43-301 **Limits**: Effective September 1, 1989, except as otherwise provided by this Rule, a person shall not apply to any marine vessel, component or structure intended for

exposure to a marine environment any coating with a VOC content in excess of the following limits, expressed as grams of VOC per liter of coating applied, excluding water, unless emissions to the atmosphere are controlled to an equivalent level (pounds VOC per gallon of solids) by an air pollution abatement equipment with an abatement device efficiency of at least 85% that meets the requirements of Regulation 2, Rule 1.

301.1	Baked Coatings:	275 grams/liter (2.3 pounds/gallon)
301.2	Air-Dried Coatings:	340 grams/liter (2.8 pounds/gallon)

(Amended 10/6/93; 6/1/94)

8-43-302 **Specialty Coating Limits**: A person shall not apply to any marine vessel, component or structure intended for exposure to a marine environment any specialty coating with a VOC content in excess of the following limits, expressed as grams of VOC per liter (pounds per gallon) of coating applied, excluding water, unless emissions to the atmosphere are controlled to an equivalent level (pounds VOC per gallon of solids) by an air pollution abatement equipment with an abatement device efficiency of at least 85% which meets the requirements of Regulation 2, Rule 1.

302.1	Anti-foulant	400 (3.3)
302.2	Heat Resistant (Air Dried)	420 (3.5)
	Heat Resistant (Baked)	360 (3.0)
302.3	High-Gloss (Air Dried)	340 (2.8)
	High Gloss (Baked)	275 (2.3)
302.4	High-Temperature	500 (4.2)
302.5	Inorganic Zinc	340 (2.8)
302.6	Navigational Aids	550 (4.6)
302.7	Pretreatment Wash Primer	420 (3.5)
302.8	Undersea Weapons System (Air Dried)	340 (2.8)
	Undersea Weapons System (Baked)	275 (2.3)
302.9	Military Exterior Topcoat	340 (2.8)
302.10	Specialty Interior	340 (2.8)
302.11	Sealant Coat for Wire Spray Aluminum	610 (5.1)
302.12	Special Marking	490 (4.1)
302.13	Tack Coat	610 (5.1)
302.14	Repair and Maintenance Thermoplastic	340 (2.8)
302.15	Extreme High-Gloss (Air Dried)	490 (4.1)
	Extreme High Gloss (Baked)	420 (3.5)
302.16	Low Activation Interior Coating	420 (3.5)

(Amended 10/6/93; 6/1/94; 4/18/01)

8-43-303 **Deleted October 6, 1993**

8-43-304 **Prohibition of Specification**: No person shall require for use or specify the application of a coating or solvent subject to this Rule if such use or application results in a violation of any provision of this Rule. The prohibition of this Section shall apply to all written or oral contracts under the terms of which any coating or solvent is applied to any marine vessel, component or structure intended for exposure to a marine environment at any physical location within the District.

(Amended October 16, 2002)

8-43-305 **Compliance Statement Requirement**: The manufacturer shall include a designation of VOC (as defined in Section 8-43-215) expressed in grams per liter or pounds per gallon on data sheets for all coatings and solvents which are offered for sale in the District to be used on marine vessels, components and structures intended for exposure to a marine environment.

(Amended October 16, 2002)

8-43-306 **Deleted October 6, 1993**

8-43-307 **Deleted October 6, 1993**

8-43-320 **Solvent Evaporative Loss Minimization:** Unless emissions to the atmosphere are controlled by an approved emission control system with an overall abatement efficiency of at least 85%, any person using solvent for surface preparation or cleanup or any person mixing, using or disposing of coatings containing organic solvent:

320.1 Shall use closed containers for the storage or disposal of cloth or paper used for solvent surface preparation and cleanup.

320.2 Shall close containers of coating, catalyst, and fresh or spent solvent when not in use.

320.3 Shall not use organic solvent for the cleanup of spray equipment, including paint lines, with a VOC content in excess of 50 g/l (0.42 lbs/gal) unless either (i) the solvent is pressurized though spray equipment with atomizing air off or dispensed from a small non-atomizing container, and collected and stored in a closed container until recycled or properly disposed of offsite, or (ii) a spray gun washer subject to and in compliance with the requirements of Regulation 8, Rule 16 is used.

(Amended October 16, 2002)

8-43-321 **Surface Preparation Standards:** Effective June 1, 2003, no person shall use a surface preparation solvent with a VOC content that exceeds 50 g/l (0.42 lbs/gal) for surface preparation of any marine vessel, component or structure subject to a marine environment unless emissions to the atmosphere are controlled to an equivalent level by an approved emission control system with an abatement device efficiency of at least 85 percent that meets the requirements of Regulation 2, Rule 1.

(Adopted October 16, 2002)

8-43-400 **ADMINISTRATIVE REQUIREMENTS**

8-43-401 **Low-Usage Coatings Petition**: Any person seeking to satisfy the conditions of Section 8-43-111 shall comply with the following requirements:

401.1 The user or specifier shall petition the APCO in writing that substitute complying coatings are not available.

401.2 If the APCO grants written approval, such petition will be repeated on an annual basis.

8-43-402 **Deleted October 16, 2002**

8-43-500 **MONITORING AND RECORDS**

8-43-501 **Coating Records**: Any person using coatings or solvents subject this Rule shall:

501.1 Maintain, or have available, a current list of coatings in use which provides all of the coating data necessary to evaluate compliance, including the following information, as applicable:

a. coating, catalyst and reducer used
b. mix ratio of components used
c. VOC content of coating as applied
d. military specification of the component or area coated
e. VOC content of solvent used for cleanup and surface preparation

501.2 Have available monthly records that provide the following information on a daily basis, as applicable:

a. coating and mix ratio of components in the coating used
b. quantity of each coating applied
c. identification of specialty coating limit category
d. oven temperature

501.3 Have available monthly records of the type and amount of surface preparation and clean-up solvent, unless more frequently specified by permit conditions imposed by Regulation 2-1-403.

501.4 Records shall be retained and available for inspection by the APCO for the previous 24 month period.

(Amended October 16, 2002)

8-43-502 **Deleted October 6, 1993**

8-43-503 **Air Pollution Abatement Equipment, Recordkeeping Requirements:** Any person operating air pollution abatement equipment to comply with Sections 8-43-301, 302, 320 or 321, in addition to Section 8-43-501, shall record key system operating parameters on a daily basis.

(Adopted 6/1/94; Amended 10/16/02)

8-43-600 **MANUAL OF PROCEDURES**

8-43-601 **Analysis of Samples**: Samples of volatile organic compounds as specified in Sections 8-43-301 and 302 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 21 or 22.

(Amended October 6, 1993)

8-43-602 **Determination of Emissions**: Emissions of volatile organic compounds as specified in Sections 8-43-301 302, 320 and/or 321 shall be measured as prescribed by any of the following methods 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. When either EPA Method 25, or 25A is used, control device equivalency shall be determined as prescribed in 55 FR 26865 (June 29, 1990). A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule.

(Amended 6/1/94; 10/16/02)

8-43-603 **Determination of Acid Content:** Measurement of acid content as specified in Section 8-43-211 shall be determined in accordance with ASTM Method D-1613-96.

(Adopted 10/6/93; Amended 10/16/02)

8-43-604 **Analysis of Solvent Samples:** Samples of volatile organic compounds as specified in Section 8-43-320 and 321 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 31.

(Adopted October 16, 2002)

8-43-605 **Analysis of Exempt Compounds:** Samples of PCBTF, VMS, and methyl acetate shall be analyzed by the Manual of Procedures, Volume III, Method 41, 43 and by ASTM Method D-6133-00, respectively.

(Adopted October 16, 2002)

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8-44-600 MANUAL OF PROCEDURES

REGULATION 8
ORGANIC COMPOUNDS
RULE 44
MARINE VESSEL LOADING TERMINALS

(Adopted January 4, 1989)

8-44-100 GENERAL

8-44-101 Description: The purpose of this Rule is to limit emissions of precursor organic compounds into the atmosphere from the loading of organic liquid or the loading into tank vessels with prior cargo of organic liquid at marine terminals.

8-44-110 Exemption, Loading Events: Sections 8-44-301 through 305 of this Rule shall not apply to loading events of less than 159 cubic meters (1,000 bbls).

8-44-111 Exemption, Marine Vessel Fueling: Sections 8-44-301 through 305 of this Rule shall not apply to the loading of organic liquids associated with the fueling (bunkering) of marine vessels.

8-44-112 Exemption, Lightering: This Rule shall not apply to the transfer of organic liquids from one marine vessel to another marine vessel.

8-44-113 Delayed Compliance, Limited Trade Vessel: Until July 1, 1992, sections 8-44-301 through 304 of this Rule shall not apply to the loading of organic liquids into vessels making infrequent visits.

8-44-114 Delayed Compliance, Small Terminals: Until July 1, 1992, sections 8-44-301 through 304 of this Rule shall not apply to small terminals.

8-44-200 DEFINITIONS

8-44-201 Marine Terminal: Any facility or structure constructed to load or unload organic liquid bulk cargo into marine tank vessels.

8-44-202 Marine Vessel: Any tugboat, tanker, freighter, passenger ship, barge or other boat, ship or watercraft (as defined in Section 39037.1 of the California Health and Safety Code) except those used primarily for recreation.

8-44-203 Tank Vessel: Any vessel which is specially constructed or converted to carry liquid bulk cargo in tanks.

8-44-204 Organic Liquid: For the purpose of this Rule, organic liquid is defined as all gasoline, gasoline blending stocks, aviation gas and aviation fuel (JP-4 type) and crude oil.

8-44-205 Emission Control Equipment: Any equipment, machinery, apparatus or device used to recover or reduce emissions of organic vapors from escaping into the atmosphere.

8-44-206 Organic Compound, Precursor: Any organic compound as defined in Regulation 1, Section 233 excepting the non-precursor organic compounds in Regulation 1-234.

8-44-207 Loading Event: An incident or occurrence beginning with the connecting of marine terminal storage tanks to a tank vessel by means of piping or hoses, the transferring of organic liquid cargo from the storage tank into the tank vessel and ending with the disconnecting of the pipes or hoses.

8-44-208 Leak Free: A liquid leak of less than four drops per minute.

8-44-209 Gas Tight: A condition that exists when the concentration of precursor organic compounds, measured 1 centimeter from any source, does not exceed 10,000 ppm (expressed as methane) above background.

8-44-210 **Crude Oil:** A naturally occurring mixture consisting predominantly of hydrocarbons and/or sulfur, nitrogen and oxygen derivatives of hydrocarbons which is removed from the earth in a liquid state or is capable of being so removed.

8-44-211 **Loading of Organic Liquid:** The loading of an organic liquid or the loading into a tank vessel where the prior cargo was an organic liquid.

8-44-212 **Infrequent Visits:** Not more than two loading events for any tank vessel in the District in any calendar year.

8-44-213 **Small Terminal:** Any marine terminal with a total organic liquid loading of less than 159,000 cubic meters (1,000,000 bbls) in any calendar year after 1985. Any marine terminal that loads more than 159,000 cubic meters (1,000,000 bbls) in any calendar year after 1985 cannot qualify for the small terminal exemption.

8-44-300 STANDARDS

8-44-301 **Marine Terminal Loading Limit:** By July 1, 1991, a person shall not load or permit the loading of an organic liquid into a marine tank vessel within the District unless:

301.1 The emissions of precursor organic compounds are limited to 5.7 grams per cubic meter (2 lbs per 1000 bbls) of organic liquid loaded, or

301.2 The emissions of precursor organic compounds are reduced at least 95 percent by weight from uncontrolled conditions.

8-44-302 **Emission Control Equipment:** The emission control equipment shall be designed and operated to collect and process all organic compound emissions from the loading of organic liquids into marine vessels.

8-44-303 **Operating Practice:** Effective July 1, 1991, all hatches, pressure relief valves, connections, gauging ports and vents associated with the loading of organic liquid into marine vessels at a marine terminal shall be maintained to be leak free and gas tight. The owner or operator of any equipment associated with the loading of organic liquid into tank vessels at a marine terminal shall maintain that equipment to be leak free and gas tight.

8-44-304 **Equipment Maintenance:** Effective July 1, 1991, a person shall not load or permit the loading of organic liquid into a marine vessel unless:

304.1 The owner or operator of the tank vessel loading organic liquid certifies to the terminal that the vessel is leak free, gas tight and in good working order, and

304.2 Loading ceases any time gas or liquid leaks as defined by Section 8-44-208 or 209 are discovered. Loading may continue only after leak(s) have been repaired.

8-44-305 **Ozone Excess Day Prohibition:** Effective July 1, 1989, and thereafter, loading of organic liquid into any marine tank vessel shall not be allowed on any day that the District predicts an excess of any Federal Ambient Air Quality Standard for ozone unless the emissions of precursor organic compounds are reduced at least 95% by weight from uncontrolled conditions, or they are limited to 5.7 grams per cubic meter (2 lbs/1000 barrels).

8-44-400 ADMINISTRATIVE REQUIREMENTS

8-44-401 **Compliance Schedule:** Any owner or operator of a marine terminal subject to Sections 8-44-301 through 305 of this Rule shall comply with the following increments of progress:

401.1 By July 1, 1989, submit to the APCO a control plan which describes the steps and schedule that will be taken to achieve compliance with the requirements of this Rule. This plan must be updated annually until final compliance with Section 8-44-301 is achieved.

401.2 By January 1, 1990, submit to the APCO an application for an authority to construct any shore side equipment required to comply with the requirements of Section 8-44-301.

Failure to meet any provision of the plans submitted in accordance with Section 8-44-401 is considered a violation.

8-44-402 **Safety/Emergency Operations:** Nothing in this rule shall be construed as to:

402.1 Require any act or omission that would be in violation of any regulation or other requirement of the United States Coast Guard or;

402.2 Prevent any act or omission that is necessary to secure the safety of a vessel or for saving life at sea.

8-44-500 MONITORING AND RECORDS

8-44-501 **Record Keeping:** Effective February 1, 1989, a person subject to Sections 8-44-110, 111, 113, 114, 301 through 305 of this Rule shall maintain operating records regarding each loading event. The records shall be maintained at the terminal for at least two years and shall be made available to the APCO upon request. The records shall include but are not limited to:

501.1 The name and location of the marine terminal at which the loading event occurred.

501.2 The company responsible for the operation of the marine terminal.

501.3 The date(s) and times at which the tank vessel arrived and departed from the marine terminal.

501.4 The name, registry of the vessel loaded and legal owner of the vessel.

501.5 The prior cargo carried by that tank vessel.

501.6 The type and amount of organic liquid cargo loaded into the tank vessel.

501.7 The condition of the tanks prior to being loaded, i.e., cleaned, crude oil washed, gas freed, etc.

8-44-502 **Burden of Proof:** Persons seeking to demonstrate compliance with Subsection 8-44-301.1 must maintain adequate test data and provide verification opportunities to the APCO on request.

8-44-600 MANUAL OF PROCEDURES

8-44-601 **Determination of Emissions:** Emissions of precursor organic compounds as specified in Section 8-44-301 shall be measured as prescribed in the Manual of Procedures, Volume IV, ST-34. This test shall be conducted so that the emissions from at least the last 50 percent of the total organic liquid loaded are included.

8-44-602 **Efficiency and Mass Emission Determination (Vapor Processing System):** The means by which mass emission rates of vapor processing systems are determined is set forth in the Manual of Procedures, Volume IV, ST-4.

8-44-603 **Leak Tests And Gas Tight Determinations:** The measurement of precursor organic compounds from equipment to determine whether they are leak free and gas tight shall be in accordance with the provisions contained in EPA reference method 21.

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RULE 45
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REGULATION 8
ORGANIC COMPOUNDS
RULE 45
MOTOR VEHICLE AND MOBILE EQUIPMENT COATING OPERATIONS

(Adopted June 7, 1989)

8-45-100 GENERAL

8-45-101 **Description:** The purpose of this Rule is to limit the emission of volatile organic compounds from the finishing or refinishing of motor vehicles, mobile equipment and their parts and components.

8-45-110 **Exemption, Original Equipment Manufacturer:** The provisions of this Rule shall not apply to Original Equipment Manufacturer (OEM) coatings applied at manufacturing or assembly plants which are subject to Regulation 8, Rule 13.

8-45-111 **Exemption, Touch-up:** The provisions of this Rule shall not apply to touch-up operations.

8-45-112 **Exemption, Graphic Design Applications:** The provisions of this Rule shall not apply to graphic design applications.

8-45-113 **Exemption, Military Vehicles and Ground Support Equipment**: The provisions of this Rule shall not apply to the coating of military vehicles and ground support equipment which is subject to the provisions of Regulation 8, Rule 19. Military vehicles include tanks and armored personnel carriers but do not include passenger vehicles. (Amended November 2, 1994)

8-45-114 **Exemption, Radiators and Engine Components**: The provisions of this Rule shall not apply to the coating of radiators and engine components which is subject to the provisions of Regulation 8, Rule 19. (Amended November 2, 1994)

8-45-115 **Exemption, Aerosol Paint Products:** The provisions of this Rule shall not apply to the application of aerosol paint products which is subject to the provisions of Regulation 8, Rule 49. (Adopted June 20, 1990)

8-45-116 **Limited Exemption, Transfer Efficiency:** The provisions of Section 8-45-303 shall not apply to the application of high viscosity or thixotropic coatings with application equipment that is supplied with and is an integral part of the coating container or to the application of corrosion protective coatings to enclosed interior spaces. (Adopted November 2, 1994)

8-45-200 DEFINITIONS

8-45-201 **Antiglare/Safety Coating:** A coating which minimizes light reflection for safety purposes. (Amended November 2, 1994)

8-45-202 **Deleted November 2, 1994**

8-45-203 **Camouflage Coating**: A coating applied on motor vehicles to conceal such vehicles from detection.

8-45-204 **Catalyst**: A substance whose presence enhances the reaction between chemical compounds.

8-45-205 **Color Match**: The ability of a repair coating to blend into an existing coating so that color difference is not visible.

8-45-206 **Electrostatic Application**: The application of charged atomized paint droplets which are deposited by electrostatic attraction.

8-45-207 **Deleted November 2, 1994**

8-45-208 **Final Stage Manufacture:** Where an incomplete vehicle chassis is delivered to a manufacturer for installation and paint of a truck body and/or components to form a completed vehicle.

8-45-209 **Graphic Design Application**: The application of logos, letters, numbers and graphics to a painted surface, with or without the use of a template.

8-45-210 **Ground Support**: Vehicles used in support of aircraft activities at airports.

8-45-211 **Group I Vehicles**: Passenger cars, large/heavy duty truck cabs and chassis, light- and medium-duty trucks and vans, and motorcycles.

8-45-212 **Group II Vehicles and Equipment**: Public transit buses and mobile equipment.

8-45-213 **High-Volume, Low-Pressure (HVLP) Spray**: Equipment used to apply coatings by means of a gun which is designed to be operated and which is operated between 0.1 and 10 psig air atomizing pressure measured dynamically at the center of the air cap and at the air horns. (Amended October 6, 1993; November 2, 1994)

8-45-214 **Large/Heavy Duty Trucks**: Any truck having a manufacturer's gross vehicle weight rating of over 10,000 pounds.

8-45-215 **Light and Medium-Duty Trucks and Vans**: Any truck or van having a manufacturer's gross vehicle weight rating of 10,000 pounds or less.

8-45-216 **Metallic/Iridescent Topcoat**: Any coating which contains more than 5 g/l (.042 lb/gal) of metal or iridescent particles, as identified on a technical or material safety data sheet, as applied, where such particles are visible in the dried film.

8-45-217 **Mobile Equipment**: Any equipment which may be drawn or is capable of being driven on rails or on a roadway, including, but not limited to, trains, railcars, truck bodies, truck trailers, camper shells, mobile cranes, bulldozers, street cleaners, golf carts and implements of husbandry. (Amended November 2, 1994)

8-45-218 **Precoat**: Any coating which is applied to bare metal primarily to deactivate the metal surface prior to application of a subsequent water-base primer surfacer. Effective April 1, 1995, a precoat shall be a coating that dries by oxidation or chemical polymerization. (Amended November 2, 1994)

8-45-219 **Pretreatment Wash Primer**: Any coating which contains a minimum of 0.5% acid by weight, is necessary to provide surface etching and is applied directly to bare metal surfaces to provide corrosion resistance and adhesion.

8-45-220 **Primer**: Any coating applied prior to the application of a topcoat for the purpose of corrosion resistance and adhesion of the topcoat. Primer Surfacer and primer sealer shall be considered as primer when applied to Group II vehicles. (Amended November 2, 1994)

8-45-221 **Primer Sealer**: Any coating applied for the purpose of sealing the underlying metal or coating system prior to the application of a topcoat. (Amended November 2, 1994)

8-45-222 **Primer Surfacer**: Any coating applied prior to the application of a topcoat for the purpose of corrosion resistance, adhesion of the topcoat, and which promotes a uniform surface by filling in surface imperfections.

8-45-223 **Reducer**: The solvent used to thin enamel.

8-45-224 **Refinishing**: Any coating of vehicles, their parts and components, or mobile equipment, including partial body collision repairs, for the purpose of protection or beautification and which is subsequent to the original coating applied at an Original Equipment Manufacturing (OEM) plant coating assembly line.

8-45-225 **Specialty Coatings**: Unique coatings and compliant coatings with additives which are necessary due to unusual job performance requirements. Said coatings include, but are not limited to, adhesion promoters, uniform finish blenders, elastomeric materials, gloss flatteners, bright metal trim repair, and anti-glare/safety coatings. (Amended November 2, 1994)

8-45-226 **Deleted November 2, 1994**

8-45-227 **Multi-State Topcoat System**: A topcoat system composd of either a basecoat / clearcoat, a basecoat/midcoat/clearcoat, or a groundcoat

The VOC content of a basecoat/clearcoat coating system shall be calculated according to the following formula:

$$OC_{MS} = \frac{VOC_{bc} + 2VOC_{cc}}{3}$$

The VOC content of a 3-Stage coating system shall be calculated according to the following formula:

$$OC_{MS} = \frac{VOC_{bc} + VOC_{mc} + 2VOC_{cc}}{4}$$

The VOC content of a 4-Stage coating system shall be calculated according to the following formula:

$$OC_{MS} = \frac{VOC_{gc} + VOC_{bc} + VOC_{mc} + 2VOC_{cc}}{5}$$

Where:

OC_{MS} is the sum of the VOC content, as applied, and used to determine compliance with the standards in Section 8-45-301.

OC_{gc} is the VOC content, as applied, of a pigmented groundcoat, basecoat or tinted primer sealer.

OC_{bc} is the VOC content, as applied, of a pigmented basecoat or translucent midcoat.

OC_{mc} is the VOC content, as applied, of a translucent midcoat or tinted clearcoat.

$2VOC_{cc}$ is two times the VOC content, as applied, of a transparent clearcoat.

(Amended November 2, 1994)

8-45-228 **Topcoat**: Any coating applied over a primer, primer system, or an original OEM finish for the purpose of protection or appearance. For the purposes of this Rule, the VOC limits for solid color and metallic/iridescent topcoats are for single stage applications. A multi stage topcoat may be either a solid or metallic/iridescent color, the VOC_{MS} of a multi stage topcoat system will determine compliance with the VOC standards in Section 8-45-301.1 or 301.2. (Amended November 2, 1994)

8-45-229 **Touch-up Coating**: A coating applied by brush or air brush to repair minor surface damage and imperfections. (Amended June 20, 1990)

8-45-230 **Transfer Efficiency**: The ratio of the amount of coating solids adhering to the object being coated to the total amount of coating solids used in the application process, expressed as a percentage.

8-45-231 **Volatile Organic Compound**: Any organic compound (excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate) which would be emitted during use, application, curing or drying of a solvent or surface coating.

231.1 For purposes of calculating VOC content of a coating, any water or any of the following compounds:
acetone
parachlorobenzotrifluoride (PCBTF)
cyclic, branched or linear, fully methylated siloxanes
shall not be considered to be part of the coating.

231.2 For the purposes of calculating the VOC content of surface preparation solvent subject to 308.4 or temporary protective coating, any water shall be considered to be part of the product. The following compounds:
acetone
parachlorobenzotrifluoride (PCBTF)
cyclic, branched of linear, completely methylated siloxanes (VMS)
shall not be considered part of the VOC content of the solvent
(Amended November 2, 1994; December 20, 1995; November 6, 1996)

8-45-232 **Aerosol Paint Product:** A mixture of resins, pigments, liquid solvents and gaseous propellants, packaged in a disposable can for hand-held application.
(Adopted June 20, 1990)

8-45-233 **Key System Operating Parameter:** An air pollution abatement operating parameter, such as temperature, flow rate or pressure, that ensures operation of the abatement equipment within manufacturer specifications and compliance with the standards in Section 8-45-301. (Adopted June 1, 1994)

8-45-234 **Utility Body**: A body designed for and mounted on a light or medium duty truck or van. (Adopted November 2, 1994)

8-45-235 **Temporary Protective Coating**: A coating applied for the purpose of protecting adjacent areas to that being painted from overspray. The temporary protective coating is removed after primer or topcoat application. (Adopted November 2, 1994)

8-45-300 STANDARDS

8-45-301 **Limits**: Effective on the dates specified, any person who applies coatings to Group I or II vehicles, mobile equipment, their parts and components, shall comply with Subsections 301.1 or 301.2 below:

301.1 Group I Vehicles: A person shall not refinish Group I vehicles, their parts and components, using any coating with a VOC content in excess of the following limits, expressed as grams of VOC per liter (or pounds per gallon) of coating applied, excluding water and exempt solvents, unless emissions to the atmosphere are controlled to an equivalent level by air pollution abatement equipment with an abatement device efficiency of at least 85% and which meets the requirements of Regulation 2, Rule 1:

	January 1, 1992 VOC	April 1, 1995 VOC
Pretreatment Wash Primer	780 g/l (6.5 lbs/gal)	780 g/l (6.5 lbs/gal)
Precoat	780 g/l (6.5 lbs/gal)	600 g/l (5.0 lbs/gal)
Primer/Primer Surfacer	340 g/l (2.8 lbs/gal)	250 g/l (2.1 lbs/gal)
Primer Sealer	420 g/l (3.5 lbs/gal)	420 g/l (3.5 lbs/gal)
Solid Color Topcoat	600 g/l (5.0 lbs/gal)	420 g/l (3.5 lbs/gal)
Metallic/Iridescent Topcoat	600 g/l (5.0 lbs/gal)	520 g/l (4.3 lbs/gal)
Multi -Stage Topcoat System	600 g/l (5.0 lbs/gal)	540 g/l (4.5 lbs/gal)

301.2 Group II Vehicles and Mobile Equipment: A person shall not finish or refinish Group II vehicles and equipment or their parts and components using any coating with a VOC content in excess of the following limits, expressed as grams of VOC per liter (or pounds per gallon) of coating applied, excluding water and exempt solvents, unless emissions to the atmosphere are controlled to an equivalent level by air pollution abatement equipment with an abatement device efficiency of at least 85% and which meets the requirements of Regulation 2, Rule 1:

	January 1, 1992 VOC	April 1, 1995 VOC
Pretreatment Wash Primer	780 g/l (6.5 lbs/gal)	780 g/l (6.5 lbs/gal)
Precoat	780 g/l (6.5 lbs/gal)	600 g/l (5.0 lbs/gal)
Primer	340 g/l (2.8 lbs/gal)	250 g/l (2.1 lbs/gal)
Primer Sealer	340 g/l (2.8 lbs/gal)	340 g/l (2.8 lbs/gal)
Topcoat	420 g/l (3.5 lbs/gal)	420 g/l (3.5 lbs/gal)
Metallic/Iridescent Topcoat	420 g/l (3.5 lbs/gal)	420 g/l (3.5 lbs/gal)
Camouflage	420 g/l (3.5 lbs/gal)	420 g/l (3.5 lbs/gal)

(Amended November 2, 1994)

8-45-302 **Deleted October 6, 1993**

8-45-303 **Transfer Efficiency**: A person shall not apply any coating to any Group I or II vehicles or mobile equipment or their parts and components unless one of the following methods is used:

303.1 Electrostatic application equipment, operated in accordance with the manufacturer's recommendations;

303.2 High-Volume, Low-Pressure (HVLP) spray equipment, operated in accordance with the manufacturer's recommendations; or

303.3 Any other coating application which achieves a transfer efficiency equivalent to the application methods listed in subsection 303.1 or 303.2. Prior written approval from the APCO shall be obtained for each equivalent method used.

(Amended October 6, 1993; November 2, 1994)

8-45-304 **Prohibition of Specification**: No person shall solicit or require for use or specify the application of a coating on a Group I or II vehicle, mobile equipment, or part or component thereof if such use or application results in a violation of the provisions of this Rule. The prohibition of this Section shall apply to all written or oral contracts under the terms of which any coating which is subject to the provisions of this Rule is to be applied to any motor vehicle, mobile equipment, or part or component at any physical location within the District.

8-45-305 **Prohibition of Sale**: A person shall not offer for sale, sell within the District, or ship into the District, any coating if such product is prohibited by any of the provisions of this Rule. The prohibition of this Section shall apply to the sale of any coating which will be applied at any physical location within the District.

(Amended November 2, 1994)

8-45-306 **Compliance Statement Requirement**: The manufacturer of coatings subject to this Rule shall include a designation of VOC (as defined in Section 8-45-231) as supplied, including coating components, expressed in grams per liter or pounds per gallon, excluding water and exempt solvents, on data sheets.

8-45-307 **Deleted November 2, 1994**

8-45-308 **Surface Preparation and Solvent Loss Minimization**: Any person using organic solvent for surface preparation and cleanup or mixing, using or disposing of coating or stripper containing organic solvent:

308.1 Shall close containers used for the storage or disposal of cloth or paper used for solvent surface preparation and cleanup.

308.2 Shall close containers of fresh or spent solvent, coating, catalyst, thinner, reducer, or solvent when not in use.

308.3 Shall not use organic compounds for the cleanup of spray equipment, including paint lines, unless equipment for collecting the organic compounds and minimizing their evaporation to the atmosphere is used.

308.4 Effective April 1, 1995, the VOC content of surface preparation solvent shall not exceed 72 g/l (0.6 lb/gal). This limit shall not apply to surface preparation solvent applied from a hand held spray bottle. The VOC content of surface preparation solvent used to clean plastic parts shall not exceed 780 g/l (6.5 lbs/gal). (Amended November 2, 1994).

8-45-309 **Deleted October 6, 1993**

8-45-310 **Deleted October 6, 1993**

8-45-311 **Small Production/Utility Bodies**: A person shall not coat utility bodies where the coating must match that of the vehicles upon which they will be mounted using any coating with a VOC content in excess of the standards set forth in Subsection 301.1, provided production is less than 20 vehicles per day.

8-45-312 **Specialty Coatings**: A person shall not use any specialty coating with a VOC content in excess of 840 g/l (7.0 lbs/gal), as applied, excluding water and exempt solvents. Use of all specialty coatings except antiglare/safety coatings shall not exceed 5.0 percent of all coatings applied, on a monthly basis.

(Amended November 2, 1994)

8-45-313 **Temporary Protective Coating**: A person shall not use any temporary protective coating with a VOC content in excess of 60 g/l (0.5 lbs/gal), excluding water.

(Adopted November 2, 1994)

8-45-314 **Precoat Limitation**: A person shall not use precoat in excess of 25%, by volume, of the amount of waterborne primer surfacer used. (Adopted November 2, 1994)

8-45-315 **HVLP Marking**: Effective April 1, 1995,a person shall not sell or offer for sale for use within the District any HVLP gun without a permanent marking denoting the maximum inlet air pressure in psig at which the gun will operate within the parameters specified in Section 8-45-213. (Adopted November 2, 1994)

8-45-316 **Filtration**: Effective April 1, 1995, a person shall not apply single or multi-stage topcoats subject to Section 8-45-301 to any vehicle except when exhausted through a properly maintained particulate filtration media. The filter system shall meet the requirements of Regulation 2, Rule 1. (Adopted November 2, 1994)

8-45-400 **ADMINISTRATIVE REQUIREMENTS**

8-45-401 **Deleted November 2, 1994**

8-45-500 MONITORING AND RECORDS

8-45-501 **Coating Records:** Any person subject to Sections 8-45-301.1 and 301.2 shall:

501.1 Maintain and have available during an inspection a current list of coatings in use that provides all of the coating data necessary to evaluate compliance, including the following information, as applicable:

a. coating, catalyst and reducer used
b. mix ratio of components used
c. VOC content of coating as applied

501.2 Record, on a weekly basis, the following information:

a. coating and mix ratio of components in the coating used
b. quantity of each coating applied

501.3 Record, on a daily basis, the following information:

a. quantity and mix ratio of each specialty coating applied

501. 4 Record on a monthly basis the type and amount of solvent used for cleanup and surface preparation.

501. 5 Records shall be retained and available for inspection by the APCO for the previous 24-month period. (Amended November 2, 1994)

8-45-502 **Air Pollution Abatement Equipment, Recordkeeping Requirements:** Any person operating air pollution abatement equipment to comply with Sections 8-45-301.1 and 301.2, in addition to Section 8-45-501 shall record on a daily basis:

a. coating and mix ratio of components in the coating used
b. key system operating parameters.

(Adopted June 1, 1994; Amended November 2, 1994)

8-45-503 **Precoat Limitation Records:** Any person using precoat shall retain purchase invoices to verify compliance with Section 8-45-314. Such invoices shall be available for inspection upon request. (Adopted November 2, 1994)

8-45-504 **Sales Records:** Any person within the District selling coatings subject to this Rule shall make receipts of customer purchases available for inspection upon request. Cash sales shall be recorded including the customer's name and business address. (Adopted November 2, 1994)

8-45-600 MANUAL OF PROCEDURES

8-45-601 **Analysis of Samples:** Samples of volatile organic compounds as specified in Sections 8-45-301.1 or 301.2 shall be analyzed as prescribed in the Manual of Procedures (MOP), Volume III, Method 21 or 22. Samples of volatile organic compounds as specified in Section 8-45-308.4 shall be analyzed as prescribed in the MOP, Volume III, Method 31. Samples containing parachlorobenzotrifluoride shall be analyzed as prescribed in the MOP, Vol. III, Method 41. Samples containing volatile methylsiloxanes shall be analyzed as prescribed in the MOP, Vol. III, Method 43. (Amended November 2, 1994; November 6, 1996)

8-45-602 **Determination of Emissions:** Emissions of volatile organic compounds as specified in Sections 8-45-301.1 or 301.2 shall be measured as prescribed by any of the following methods: 1) BAAQMD Manual of Procedures, Volume IV, ST 7, 2) EPA Method 25 or 25A. When either EPA Method 25 or 25A is used, control device equivalency shall be determined as prescribed in 55 FR 26865 (June 29, 1990). For the purpose of determining abatement device efficiency, any acetone, PCBTF or VMS shall be included as a volatile organic compound. A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule.(Amended June 1, 1994; November 6, 1996)

8-45-603 **Deleted October 6, 1993**

8-45-604 **Determination of Acid Content:** Measurement of acid content as specified in Section 8-45-219 shall be determined in accordance with ASTM Test Method D-1613-85. (Adopted October 6, 1993)

REGULATION 8
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REGULATION 8
ORGANIC COMPOUNDS
RULE 46
MARINE TANK VESSEL TO MARINE TANK VESSEL LOADING
(Adopted July 12, 1989)

8-46-100 GENERAL

8-46-101 Description: The purpose of this Rule is to limit emissions of precursor organic compounds into the atmosphere resulting from the loading of liquid into a marine tank vessel from another marine tank vessel.

8-46-110 Exemption, Loading Events: Sections 8-46-301 through 305 of this Rule shall not apply to loading events of less than 159 cubic meters (1,000 bbls).

8-46-200 DEFINITIONS

8-46-201 Crude Oil: A naturally occurring mixture consisting predominantly of hydrocarbons and/or sulfur, nitrogen and oxygen derivatives of hydrocarbons which is removed from the earth in a liquid state or is capable of being so removed.

8-46-202 Emission Control Equipment: Any equipment, machinery, apparatus or device used to recover or reduce emissions of precursor organic compounds from escaping into the atmosphere.

8-46-203 Gas Tight: A condition that exists when the concentration of precursor organic compounds, measured 1 centimeter from any source, does not exceed 10,000 ppm (expressed as methane) above background.

8-46-204 Leak Free: A liquid leak of less than four drops per minute.

8-46-205 Loading Event: An incident or occurrence beginning with the connecting of a marine tank vessel to a marine tank vessel by means of pipes or hoses, the transferring of liquid cargo from one marine tank vessel to the other marine tank vessel and ending with the disconnecting of the pipes or hoses. In addition, emissions resulting from venting of precursor organic compounds within the District prior to or after a loading event are included in that loading event.

8-46-206 Marine Tank Vessel: Any marine vessel which is specially constructed or converted to carry liquid bulk cargo in tanks.

8-46-207 Marine Terminal: Any facility or structure constructed to load or unload organic liquid bulk cargo into or out of marine tank vessels.

8-46-208 Marine Vessel: Any tugboat, tanker, freighter, passenger ship, barge or other boat, ship or watercraft (as defined in Section 39037.1 of the California Health and Safety Code) except those used primarily for recreation.

8-46-209 Organic Compound, Precursor: Any organic compound as defined in Regulation 1, Section 233 excepting the non-precursor organic compounds in Regulation 1, Section 234.

8-46-210 Organic Liquid: For the purpose of this Rule, organic liquid is defined as all gasoline, gasoline blending stocks, aviation gas and aviation fuel (JP-4 type) and crude oil.

8-46-300 STANDARDS

8-46-301 Marine Tank Vessel To Marine Tank Vessel Loading Limit: By July 1, 1991, a person shall not conduct a loading event within the District unless:

301.1 The emissions of precursor organic compounds are limited to 5.7 grams per cubic meter (2 lbs per 1000 bbls) of liquid loaded into a marine tank vessel from another marine tank vessel, or

301.2 The emissions of precursor organic compounds are reduced at least 95 percent by weight from uncontrolled conditions.

8-46-302 **Emission Control Equipment:** The emission control equipment shall be designed and operated to collect and process all emissions of precursor organic compounds resulting from a loading event.

8-46-303 **Operating Practice:** Effective July 1, 1991, all hatches, pressure relief valves, connections, gauging ports and vents associated with a loading event shall be maintained to be leak free and gas tight. The owner or operator of any equipment associated with the loading event shall maintain that equipment to be leak free and gas tight.

8-46-304 **Equipment Maintenance:** Effective July 1, 1991, a person shall not initiate or continue a loading event unless:

304.1 The owners or operators of the marine tank vessels certify that the marine tank vessels are leak free, gas tight and in good working order, and

304.2 Loading ceases any time gas or liquid leaks as defined by Sections 8-46-203 and 204, respectively, are discovered. Loading may continue only after leak(s) have been repaired.

8-46-305 **Ozone Excess Day Prohibition:** Effective July 15, 1989, and thereafter, loading events shall not be allowed on any day that the District predicts an excess of any Federal Ambient Air Quality Standard for ozone unless the emissions of precursor organic compounds meet the standards of Section 8-46-301.

8-46-400 ADMINISTRATIVE REQUIREMENTS

8-46-401 **Compliance Schedule:**

401.1 Any owner or operator of a marine tank vessel to be used in lightering operations subject to Sections 8-46-301 through 305 of this Rule shall, by January 1, 1990, submit to the APCO a control plan which describes the steps and schedule that will be taken to achieve compliance with the requirements of this Rule.

401.2 Any owner or operator of a marine terminal shall, by January 1, 1990, submit to the APCO a control plan which describes the steps and schedule that will be taken to achieve compliance with the requirements of this Rule.

401.3 This plan must be updated annually until final compliance with Section 8-46-301 is achieved.

401.4 Failure to meet any provision of a plan submitted in accordance with Section 8-46-401 is considered a violation.

8-46-402 **Safety/Emergency Operations:** Nothing in this rule shall be construed as to:

402.1 Require any act or omission that would be in violation of any regulation or other requirement of the United States Coast Guard or;

402.2 Prevent any act or omission that is necessary to secure the safety of a vessel or for saving life at sea.

8-46-403 **Notification:** Until July 1, 1993, the operator of a marine tank vessel intending to engage in a loading event shall notify the APCO. Notification should be in writing although notification by telephone or in person may be made during normal District business hours. Notification must be received by the APCO at least 24 hours prior to the loading event and include names of marine tank vessels, operators, cargo, location, plus estimated start and duration of loading event.

8-46-500 MONITORING AND RECORDS

8-46-501 **Record Keeping:** Effective January 1, 1990, a person subject to Sections 8-46-110, and 301 through 305 of this Rule shall maintain operating records regarding each loading event. The records shall be maintained for at least two years and shall be made available to the APCO upon request. The records shall include but are not limited to:

501.1 The location of each loading event.

501.2 The company responsible for the operation of the loading event.

501.3 The date(s) and times at which the marine tank vessels arrived and departed from location of the loading event.

501.4 The name, registry of the vessels and legal owner of the marine tank vessels participating in the loading event.

501.5 The prior cargo carried by the receiving marine tank vessel.

501.6 The type and amount of liquid cargo loaded into the receiving marine tank vessel.

501.7 The condition of the receiving tanks prior to being loaded,(i.e., cleaned, crude oil washed, gas freed, etc).

501.8 Equipment maintenance certification required in accordance with Section 8-46-304.

501.9 Amount of ballast water added to unsegregated ballast tanks.

501.10 Description of operating procedure to prevent venting while ballasting into unsegregated ballast tanks.

501.11 The departure and arrival ports or marine terminals for all the marine tank vessels participating in a loading event.

8-46-502 **Burden of Proof:** Persons seeking to demonstrate compliance with Subsection 8-46-301 must maintain adequate test data and provide verification opportunities to the APCO on request.

8-46-600 **MANUAL OF PROCEDURES**

8-46-601 **Determination of Emissions:** Emissions of precursor organic compounds as specified in Section 8-46-301 shall be measured as prescribed in the Manual of Procedures, Volume IV, ST-34. This test shall be conducted so that the emissions from at least the last 50 percent of the total liquid loaded are included.

8-46-602 **Efficiency and Mass Emission Determination (Vapor Processing System):** The means by which mass emission rates of vapor processing systems are determined is set forth in the Manual of Procedures, Volume IV, ST-4.

8-46-603 **Leak Tests And Gas Tight Determinations:** The measurement of precursor organic compounds from equipment to determine whether they are leak free and gas tight shall be in accordance with the provisions contained in EPA Reference Method 21.

REGULATION 8
ORGANIC COMPOUNDS
RULE 47
AIR STRIPPING AND SOIL VAPOR EXTRACTION OPERATIONS

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REGULATION 8
ORGANIC COMPOUNDS
RULE 47
AIR STRIPPING AND SOIL VAPOR EXTRACTION OPERATIONS
(Adopted December 20, 1989)

8-47-100 GENERAL

8-47-101 **Description:** The purpose of this Rule is to limit emissions of organic compounds from contaminated groundwater and soil. The provisions of this Rule shall apply to new and modified air stripping and soil vapor extraction equipment used for the treatment of groundwater or soil contaminated with organic compounds.

8-47-109 **Exemption, Small Operations:** The provisions of Section 8-47-301 shall not apply to operations that satisfy both of the following requirements:

109.1 Operations that emit no more than one of the following compounds: benzene, vinyl chloride, trichloroethylene, perchloroethylene or methylene chloride; and

109.2 Benzene emissions do not exceed 0.05 pounds per day, vinyl chloride emissions do not exceed 0.2 pounds per day or trichloroethylene, perchloroethylene or methylene chloride emissions do not exceed 0.5 pounds per day.

8-47-110 **Exemption, Sewage Treatment Facilities:** The requirements of this Rule shall not apply to aeration of wastewater at sewage treatment facilities.

8-47-111 **Exemption, Industrial Wastewater Treatment Facilities:** The requirements of this Rule shall not apply to industrial wastewater treatment facilities.

8-47-112 **Exemption, Specified Operation:** This Rule shall not apply to operations that are subject to the requirements of Regulation 8, Rule 40.

8-47-113 **Exemption, Air Stripping and Soil Vapor Extraction Operations Less Than 1 Pound per Day:** The provisions of Section 8-47-301 shall not apply to operations with total emissions of less than 1 pound per day of benzene, vinyl chloride, perchloroethylene, methylene chloride and/or trichloroethylene, provided the requirements of Section 8-47-402 are satisfied. Once an exemption pursuant to this section is granted, if the emissions of an operation exceed 1 pound per day, then that operation is subject to Section 8-47-301. The operator of the source may submit a petition to the APCO in writing requesting review under this exemption if uncontrolled emissions have been shown, due to sustained remediation activities, to have dropped to a constant emission rate of less than 1 pound per day.

8-47-200 DEFINITIONS

8-47-201 **Air Stripping:** Equipment which is used to transfer organic compounds from contaminated water to the atmosphere by bringing water into intimate contact with air.

8-47-202 **Soil Vapor Extraction:** An underground and/or aboveground active system installed to extract organic compounds from the soil and vent them to the atmosphere. Operations subject to Regulation 8, Rule 40, are not subject to this Rule.

8-47-203 **Active System:** A system which forcibly aerates soil by mechanically drawing air through the soil or applying heat to the soil.

8-47-204 **Organic Compound:** Any compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate.

8-47-300 **STANDARDS**

8-47-301 **Emission Control Requirement, Specific Compounds:** Any air stripping and soil vapor extraction operations which emit benzene, vinyl chloride, perchloroethylene, methylene chloride and/or trichloroethylene shall be vented to a control device which reduces emissions to the atmosphere by at least 90 percent by weight.

8-47-302 **Organic Compounds:** Any air stripping and soil vapor extraction operations with a total organic compound emission greater than 15 pounds per day shall be vented to a control device which reduces the total organic compound emissions to the atmosphere by at least 90 percent by weight.

8-47-400 **ADMINISTRATIVE REQUIREMENTS**

8-47-401 **Reporting, Superfund Amendments and Reauthorization Act (SARA) Sites:** Any person responsible for air stripping or soil vapor extraction operations which have not applied for a District permit shall provide written notification to the APCO of intention to operate. This notice shall include:

401.1 Address of the remediation site.

401.2 Schedule of starting date 30 days prior to start-up.

401.3 Written certification that the proposed operation will be in compliance with the requirements of this Rule.

401.4 Any person seeking to satisfy the conditions of Section 8-47-113 shall submit the risk analysis for APCO approval as required in Section 8-47-402.

8-47-402 **Less Than 1 Pound Per Day Petition:** Any person seeking to satisfy the conditions of Section 8-47-113 shall:

402.1 Submit a petition to the APCO in writing requesting review and written approval of a risk analysis for the benzene, vinyl chloride, perchloroethylene, methylene chloride and/or trichloroethylene organic compound emissions that are less than 1 pound per day.

8-47-500 **MONITORING AND RECORDS**

8-47-501 **Records:** Any person subject to the requirement of this Rule shall keep records of the following:

501.1 Any water analysis results as required by Section 8-47-601.

501.2 Any vapor monitoring results that have been collected to monitor the performance of a control device. Such records shall be retained for a minimum of two years from date of entry and be made available to District staff upon request.

8-47-600 **MANUAL OF PROCEDURES**

8-47-601 **Air Stripper Water Sampling:** For each of the first three days of operation at least one sample of influent water into the air stripper shall be collected and analyzed. At least one sample shall be collected and analyzed thereafter for each calendar month of operation. Samples shall be collected in accordance with the EPA's or the Regional Water Quality Control Board's Analytical Methods.

(Amended October 6, 1993)

8-47-602 **Measurement of Organic Content:** Organic compound concentration in the water shall be determined by the Regional Water Quality Control Board's Analytical Methods. (Amended October 6, 1993)

8-47-603 **Determination of Emissions:** Emissions of organic compounds, as specified in sections 8-47-301 and 8-47-302, shall be measured as prescribed by any of the following methods 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule. (Adopted December 20, 1989; Amended June 15, 1994)

REGULATION 8
ORGANIC COMPOUNDS
RULE 49
AEROSOL PAINT PRODUCTS

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REGULATION 8
ORGANIC COMPOUNDS
RULE 49
AEROSOL PAINT PRODUCTS
(Adopted June 20, 1990)

8-49-100 GENERAL

8-49-101 Description: The purpose of this Rule is to limit emissions of organic compounds from the use of hand-held aerosol paint products.

8-49-110 Exemption, Non-Paint Aerosol Products: The provisions of this Rule shall not apply to aerosol lubricants, mold releases, asphaltic or rubber based automotive underbody coatings, electrical coatings, cleaners, belt dressings, anti-static sprays, layout fluids and removers, rust converters, adhesives, maskants, dyes, or inks. (Adopted August 21, 1991, Amended December 20, 1995)

8-49-111 Exemption, Shipment and Use Outside District: The provisions of this Rule shall not apply to aerosol coatings sold, manufactured, or warehoused in the District for shipment and use outside of the District. (Adopted August 21, 1991)

8-49-112 Limited Exemption, Labeling Requirements: Until January 1, 1997 and provided that the requirements of Section 8-49-404 are satisfied, a person may sell, offer for sale, or apply an aerosol paint product, provided that the product is in compliance with all other requirements of this Rule and all the requirements of Section 8-49-401 except the display of the maximum VOC content. (Adopted December 20, 1995)

8-49-200 DEFINITIONS

8-49-201 Aerosol: A suspension of solid or liquid particles in a gas.

8-49-202 Aerosol Paint Product: A mixture of pigments, resins, liquid solvents, and gaseous propellants, packaged in a disposable can for hand-held application.

8-49-203 Deleted December 20, 1995

8-49-204 Deleted December 20, 1995

8-49-205 Solids: The non-volatile portion of an aerosol paint product, consisting of the film-forming ingredients (pigments and resins).

8-49-206 Paint: A mixture of pigments, resins, and liquid solvents which can be applied to a surface to form a thin and closely adherent coating. For the purposes of this regulation, this definition shall include but shall not be limited to clear coatings, primers, metallic coatings, and wood stains.

8-49-207 Propellant: A liquified or compressed gas which expels the contents of a container when the pressure is released.

8-49-208 Art Varnish: A coating labeled exclusively as such which provides a protective sealant for oil paintings or other closely related art uses. (Adopted August 21, 1991)

8-49-209 Auto Body Primer: A heavily pigmented automotive primer or primer surfacer coating labeled exclusively as such and applied directly to an uncoated vehicle body substrate or on top of a precoat for purposes of corrosion resistance, building a repair area to a condition in which it, after drying, can be sanded to a smooth surface. (Adopted August 21, 1991)

8-49-210 Automotive Bumper and Trim Products: Coatings formulated and labeled exclusively as such which are used to repair and refinish automotive bumpers and plastic trim parts including adhesion promoters and chip sealants. (Adopted August 21, 1991)

8-49-211 Aviation Propeller Coating: An epoxy coating formulated and labeled exclusively as such which provides abrasion resistance and corrosion protection for aircraft propellers. (Adopted August 21, 1991)

8-49-212 **Aviation or Marine Zinc Primer:** Zinc chromate or zinc oxide coatings formulated to federal specification TT-P-1757 and labeled exclusively as such.
(Adopted August 21, 1991; Amended December 20, 1995)

8-49-213 **Clear Coating:** A coating which is colorless, containing binders but no hiding pigment, and which is formulated to form a transparent or translucent solid film.
(Adopted August 21, 1991; Amended December 20, 1995)

8-49-214 **Corrosion Resistant Brass/Bronze/Copper Coating:** A clear coating formulated and labeled exclusively as such to prevent tarnish and corrosion of brass, bronze, and copper surfaces. (Adopted August 21, 1991)

8-49-215 **Enamel:** A coating which cures by chemical cross-linking of its base resin. Enamels can be readily distinguished from lacquers because enamels are not resoluble in their original solvent. (Adopted August 21, 1991)

8-49-216 **Engine Paint:** A coating, labeled exclusively as such, applied to the exterior surface of motor vehicle engine blocks or components attached to a motor vehicle engine. The cans shall be labeled with the Original Equipment Manufacturer's (O.E.M.) part number or color code.
(Adopted August 21, 1991; Amended December 20, 1995)

8-49-217 **Exact Match Finish, Automotive:** A topcoat labeled exclusively as such which is formulated to exactly match the color of the original, factory-applied automotive finish coating during touch-up or minor repair operations. The cans shall be labeled with the Original Equipment Manufacturer's (O.E.M.) part number or color code. Clear coatings designed, marketed and labeled exclusively for use over pigmented automotive exact match finishes to shall be considered subject to the VOC standards of this category. (Adopted August 21, 1991, Amended December 20, 1995)

8-49-218 **Exact Match Finish, Industrial:** A coating which is formulated to exactly match the color of an original, factory-applied industrial coating. The cans shall be labeled with the manufacturer's name for which they were formulated and with the Original Equipment Manufacturer's (O.E.M.) color code number, color name or other designation identifying the specific O.E.M. color to the purchaser. This category applies primarily to touch-up of manufactured products prior to shipment or during initial installation. (Adopted August 21, 1991, Amended December 20, 1995)

8-49-219 **Flat Paint Products:** A coating which, when fully dry, has a gloss of 5 or less on a 60° meter. (Adopted August 21, 1991)

8-49-220 **Floral Spray:** A coating labeled exclusively as such which is sprayed on fresh flowers for the purpose of preserving and protecting their appearance.
(Adopted August 21, 1991)

8-49-221 **Fluorescent Coating:** A coating labeled as such which converts absorbed incident light energy into emitted light of a different hue. (Adopted August 21, 1991)

8-49-222 **Glass Coating:** A coating labeled exclusively as such which is applied to glass to tint or darken the color of the glass while retaining transparency.
(Adopted August 21, 1991)

8-49-223 **Ground/Traffic Marking Coating:** A coating used to delineate vehicular or pedestrian traffic flow in a manufacturing facility or on a public highway or to mark or define locations used by public utilities (e.g., gas, telephone, electric).
(Adopted August 21, 1991)

8-49-224 **High Temperature Coating:** A coating labeled exclusively as such which is formulated for and applied to substrates which will, in normal use, be subjected to temperatures in excess of 400° F. (Adopted August 21, 1991)

8-49-225 **Hobby/Model/Craft Coating:** A coating primarily for hobby applications. Can contents shall not exceed six ounces by weight. (Adopted August 21, 1991)

8-49-226 **Lacquer:** A thermoplastic film-forming material dissolved in organic solvent, which dries primarily by solvent evaporation and hence is resoluble in its original solvent.
(Adopted August 21, 1991)

8-49-227 **Marine Spar Varnish:** A coating labeled exclusively as such which provides a protective sealant for marine wood products. (Adopted August 21, 1991)

8-49-228 **Metallic Coating:** A topcoat containing metallic particles which impart a metallic appearance when dry. (Adopted August 21, 1991)

8-49-229 **Multi-Component Kits:** Aerosol spray paint systems which require the application of more than one component (e.g., foundation coat and top coat), where both components are sold together in one package and neither is sold separately. (Adopted August 21, 1991)

8-49-230 **Photographic Emulsion Coating:** A coating formulated and labeled exclusively as such applied to finished photographs to allow corrective retouching or protection of the image. (Adopted August 21, 1991)

8-49-231 **Non-Flat Paint Products:** A coating which, when fully dry, has a gloss of greater than 5 on a 60^0 meter. (Adopted August 21, 1991)

8-49-232 **Primer:** A coating formulated and labeled as such to be applied to a surface to provide a bond between that surface and subsequent coats. (Adopted August 21,1991)

8-49-233 **Retail Sales:** The sale of goods directly to a non-commercial consumer. For the purposes of this Rule, sales to jobbers and industrial end-users shall not be deemed retail sales. (Adopted August 21, 1991)

8-49-234 **Shellac Sealer:** A clear or pigmented coating formulated solely with the resinous secretion of the lac beetle (Laccifer lecca), thinned with alcohol, and formulated to dry by evaporation without a chemical reaction. (Adopted August 21, 1991)

8-49-235 **Slip-Resistant Epoxy Coating:** An epoxy ester coating labeled exclusively as such which is formulated with synthetic grit and used as a safety coating. (Adopted August 21, 1991)

8-49-236 **Spatter Coating:** A coating wherein spots, globules, or spatters of individual or contrasting colors appear on or within the surface of a contrasting or similar background. (Adopted August 21, 1991)

8-49-237 **Vinyl/Fabric/Polycarbonate:** A coating labeled exclusively as such which is used exclusively to coat vinyl, fabric, or polycarbonate substrates. (Adopted August 21, 1991)

8-49-238 **Webbing/Veiling Coating:** A coating labeled exclusively as such which is formulated to give a stranded or spider webbed appearance when applied. (Adopted August 21, 1991)

8-49-239 **Weld-Through Primer:** A coating formulated and labeled exclusively as such which provides a bridging or conducting effect to provide corrosion protection following welding. (Adopted August 21, 1991)

8-49-240 **Wood Stain:** A coating which is formulated to change the color of a wood surface but not conceal the surface. (Adopted August 21, 1991)

8-49-241 **Wood Touch-Up/Repair/Restoration:** A coating formulated and labeled exclusively as such which provides an exact color or sheen match on finished wood products. (Adopted August 21, 1991)

8-49-242 **Workable Art Fixative:** A clear coating formulated and labeled exclusively as such which provides protection for pencil, charcoal, chalk, and pastel drawings while providing a workable surface. (Adopted August 21, 1991)

8-49-243 **Volatile Organic Compound (VOC):** Any organic compound which would be emitted during the use, application, curing, or drying of an aerosol paint product.

243.1 For the purposes of calculating the VOC content of an aerosol paint product, the following compounds:

difluoroethane (HFC-152a)
acetone
parachlorobenzotrifluoride (PCBTF)
cyclic branched or linear, completely methylated siloxanes (VMS)

shall not be considered part of the VOC content of the aerosol paint product.

(Adopted Aug. 21, 1991; Amended Jun. 2, 1993; Jan. 19, 1994; December 20, 1995)

8-49-300 STANDARDS

8-49-301 **Limits:** A person shall not sell, offer for sale, apply, solicit, or manufacture for sale within the District any hand-held aerosol paint product with a VOC content in excess of the following limits, expressed as percent VOC by weight of product:

		VOC Limits (%)
301.1	**General Coatings**	
	Clear Coating	67
	Flat Paint Products	60
	Fluorescent	65
	Ground/Traffic Marking Coating	66
	Metallic Coating	80
	Non-Flat Paint Products	65
	Primer	60
301.2	**Specialty Coatings**	
2.1	**Specialty Clear and Tinted Coatings**	
	Corrosion Resistant Brass/Bronze/Copper Coating	92
	Photographic Emulsion Coating	95
	Art Varnish	92
	Marine Spar Varnish	85
	Vinyl/Fabric/Polycarbonate	95
	Webbing/Veiling Coating	90
	Wood Stain	95
	Workable Art Fixative	95
2.2	**Exact Match Finish**	
	Engine Enamel	80
	Automotive	88
	Industrial	88
2.3	**Miscellaneous Coatings**	
	Auto Body Primer	80
	Automotive Bumper and Trim Products	95
	Aviation Propeller Coating	84
	Aviation or Marine Zinc Primer	80
	Floral Spray	95
	Glass Coating	95
	High Temperature Coating	80
	Hobby/Model/Craft Coatings	
	Enamel	80
	Lacquer	88
	Clear, Metallic	95
	Shellac Sealer	
	Clear	88
	Pigmented	75
	Slip-Resistant Epoxy Coating	80
	Spatter Coating	80
	Weld-Through Primer	75
	Wood Touch-up/Repair/Restoration	95

(Amended August 21, 1991; December 20, 1995)

8-49-302 **Prohibition of Non-Intended Use:** A person shall not use within the District any coating subject to the standards of Section 8-49-301 for any use other than that shown on the product label. (Adopted August 21, 1991)

8-49-303 **Multi-Component Applications:** A person shall not sell, offer for sale, apply, solicit, or manufacture for sale within the District any multi-component aerosol kit, as defined in Section 8-49-229, unless the total VOC emitted from the use of that multi-

component kit does not exceed the VOC which would be allowed from each single-component product in compliance with the applicable specialty category listed in Section 8-49-301, used separately.(Adopted Aug. 21, 1991; Amended Dec. 20, 1995)

8-49-304 **Deleted December 20, 1995**

8-49-305 **Deleted December 20, 1995**

8-49-400 **ADMINISTRATIVE REQUIREMENTS**

8-49-401 **Labeling Requirements:** Each container of any aerosol paint product subject to this rule manufactured for sale, sold or offered for sale within the District shall be permanently and exclusively labeled (e.g., "for automotive use only") by coating type and shall display the maximum organic compound content expressed as % VOC as determined under Section 8-49-601. (Amended August 21, 1991)

8-49-402 **Duplicate Specification Standards:** If anywhere on the container of any aerosol paint product listed in section 8-49-301, or on any sticker or label affixed thereto or in any sales or advertising literature, any representation is made that the product may be used as, or is suitable for use as, a product for which a lower VOC standard is specified, then the lowest applicable VOC standard shall apply. (Adopted August 21, 1991)

8-49-403 **Deleted December 20, 1995**

8-49-404 **Product Date Code Submittal:** In order to qualify for the limited exemption in Section 8-49-112, a manufacturer of aerosol coatings shall submit to the APCO a description of applicable aerosol paint products and the date codes for those products. Products for which description and date codes have not been submitted that do not display the maximum VOC content shall be in violation of Section 8-49-401. (Adopted December 20, 1995)

8-49-500 **MONITORING AND RECORDS**

8-49-501 **Recordkeeping Requirements:** Each person who manufactures hand-held aerosol paint products for sale in the District shall maintain sales data by category and organic compound content expressed as % VOC by weight. These data shall be submitted to the APCO annually. The annual reports for the preceding year shall be due before March 1 of each year. (Amended August 21, 1991; December 20, 1995)

8-49-600 **MANUAL OF PROCEDURES**

8-49-601 **Determination of Compliance, Hand-Held Aerosol Paint Products:** The means by which compliance of hand-held aerosol paint products is determined are found in the Manual of Procedures, Volume III, Method 35 and 36.(Amended August 21, 1991)

REGULATION 8
ORGANIC COMPOUNDS
RULE 50
POLYESTER RESIN OPERATIONS

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REGULATION 8
ORGANIC COMPOUNDS
RULE 50
POLYESTER RESIN OPERATIONS

(Adopted December 5, 1990)

8-50-100 GENERAL

8-50-101 Description: The purpose of this Rule is to limit organic compound emissions from the manufacturing of products using polyester resins.

8-50-110 Limited Exemption, Touch-up and Repair: The requirements of Sections 8-50-301 shall not apply to touch-up and repair.

8-50-200 DEFINITIONS

8-50-201 Catalyst: A substance added to the resin to initiate polymerization.

8-50-202 Cleaning Materials: Materials used to clean hands, tools, molds, application equipment, work area, and other process related equipment.

8-50-203 Closed-mold System: A system of forming objects from polyester resins by placing the material in a confining cavity and applying pressure and/or heat.

8-50-204 Control System: A control device and collection system designed in accordance with good engineering practices.

8-50-205 Corrosion-resistant Materials: Halogenated, furan, bisphenol-A, Vinyl-ester, or isophthalic resins used to make products for corrosive or fire retardant services.

8-50-206 Cross-linking: The chemical process of joining two or more polymer chains together.

8-50-207 Fiberglass: A fiber similar in appearance to wool or cotton fiber but made from glass.

8-50-208 Gel Coat: A polyester resin surface coating that provides a cosmetic enhancement and improves resistance to degradation from exposure to the environment.

8-50-209 Inhibitor: A substance used to slow down or prevent a chemical reaction.

8-50-210 Low-VOC Emission Resin System: A polyester resin material which contains additives to reduce monomer evaporation loss.

8-50-211 Monomer: A relatively low molecular weight organic compound that combines with itself or other similar compounds to become a polymerized thermosetting resin.

8-50-212 Polyester: A complex polymeric ester containing difunctional acids.

8-50-213 Polyester Resin Material: Any VOC containing materials used in polyester resin operations which include, but are not limited, to unsaturated polyester resins such as isophthalic, orthophthalic, halogenated, bisphenol-A, vinyl-ester, or furan resins; cross-linking agents; catalysts, gel coats, inhibitors, accelerators, promoters, and any other VOC containing materials.

8-50-214 Polyester Resin Operations: Methods used for the production or rework of product by mixing, pouring, hand laying-up, impregnating, injecting, forming, spraying, and/or curing unsaturated polyester materials with fiberglass, fillers, or any other reinforcement materials and associated clean-up.

8-50-215 Polymer: A substance consisting of a large number of chemical groups and which is formed by the chemical linking of monomers.

8-50-216 Polymerize: Transformation from a liquid to a solid or semi-solid state to achieve desired product physical properties, including hardness.

8-50-217 Repair: The part of the fabrication process that requires the addition of polyester material to portions of a previously fabricated product in order to mend minor structural damage immediately following normal fabrication operations.

8-50-218 Resin: Any class of organic polymers of natural or synthetic origin used in reinforced products to surround and hold fibers, and is solid or semi-solid in the polymerized state.

8-50-219 **Touch-up:** The portion of the fabrication process that is necessary to cover minor imperfections.

8-50-220 **Volatile Organic Compound (VOC):** Any organic compound (excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate) which would be emitted during use, application, curing or drying of a solvent or polyester resin material.

220.1 For purposes of calculating the VOC content of a polyester resin material, any water or any of the following non-precursor organic compounds:
acetone
parachlorobenzotrifluoride (PCBTF)
cyclic, branched or linear completely methylated siloxanes (VMS)
shall not be considered to be part of the polyester resin material.

220.2 For the purposes of calculating the VOC content of a solvent subject to Section 305.4, any water shall be considered part of the material. The following compounds:
acetone
parachlorobenzotrifluoride (PCBTF)
cyclic, branched or linear, completely methylated siloxanes (VMS)
shall not be considered part of the VOC content of the solvent.

(Amended December 20, 1995; November 6, 1996)

8-50-221 **Vapor Suppressant:** A substance added to resin to minimize the outward diffusion of monomer vapor into the atmosphere.

8-50-222 **Waste Materials:** Materials including, but not limited to, any scrap resulting from cutting and grinding operations, any paper or cloth used for cleaning operations, waste resins, non-polymerized waste resins, and any spent cleaning materials.

8-50-223 **Airless Spray:** Equipment used to apply materials by use of fluid pressure without atomizing air, including heated airless spray.

8-50-224 **Air Assisted Airless Spray:** Equipment used to apply materials that uses fluid pressure to atomize coating and air pressure between 0.1 and 10 psig to adjust the spray pattern.

8-50-225 **High-Volume Low-Pressure (HVLP) Spray:** Equipment used to apply materials by means of a gun which operates between 0.1 and 10 psig air pressure.

8-50-226 **Electrostatic Air Spray:** Equipment used to apply materials by charging atomized particles that are deposited by electrostatic attraction.

8-50-227 **Aproved Emission Control System:** A system for reducing emissions of VOC to the atmosphere, consisting of a control device and a collection system, which achieves the overall abatement efficiency specified in the applicable standards section at all times during operation of the equipment being controlled.

(Adopted June 15, 1994)

8-50-228 **Key System Operating Parameter:** An emission control system operating parameter, such as temperature, flow rate or pressure, that ensures operation of the abatement equipment within manufacturer specifications and compliance with the standard in Section 8-50-303. (Adopted June 15, 1994

8-50-300 **STANDARDS**

8-50-301 **Process Requirements:** A polyester resin operation shall use one or more of the following emission reducing methods except as provided in Section 8-50-304:

301.1 Use polyester resin material with a monomer content of no greater than 35 percent by weight.

301.2 Use a resin containing vapor suppressant, such that weight loss from VOC emissions do not exceed 60 grams per square meter of exposed surface area during resin polymerization.

301.3 Use a closed-mold system.

8-50-302 **Spraying Operations:** A polyester resin operation using spray application equipment shall use one or more of the following spray equipment:

302.1 Airless Spray

302.2 Air-assisted Airless Spray

302.3 Electrostatic Spray

302.4 High-volume, Low-pressure Spray

8-50-303 **Emission Control Requirement:** The requirements of Sections 8-50-301 and 302 shall not apply to polyester resin operations which install and properly operate an approved emission control system that meets the requirements of Regulation 2, Rule 1 and reduces organic compound emissions by at least 85 percent overall.

(Amended June 15, 1994)

8-50-304 **Corrosion-resistant Materials:** Any polyester resin operation using corrosion-resistant materials to manufacture products for corrosive or fire retardant service shall use a polyester resin material with a monomer content of no greater than 50 percent by weight.

8-50-305 **Surface Preparation and Clean-up Solvent:** The requirements of this section shall apply to any polyester resin operation using organic solvent for surface preparation and clean-up.

305.1 A polyester resin operation shall use closed containers for the storage of all polyester resin materials, cleaning materials and any unused VOC-containing materials except when accessed for use.

305.2 A polyester resin operation shall use self-closing containers for the disposal of all polyester resin materials, cleaning materials, waste materials, and any unused VOC containing materials in such a manner as to effectively control VOC emissions to the atmosphere.

305.3 A polyester resin operation shall not use organic compounds for the clean-up of spray equipment including spray lines unless equipment for collecting the cleaning material and minimizing their evaporation to the atmosphere is used.

305.4 A polyester resin operation shall use cleaning materials that contain no greater than 200 grams of VOC per liter of material.

8-50-306 **Equipment Requirements:** All resin baths shall be covered to reduce organic compound emissions.

8-50-307 **Gel Coat Requirement:** A person shall not use a gel coat which contains more than 250 grams of volatile compounds per liter of coating applied.

8-50-500 **MONITORING AND RECORDS**

8-50-501 **Records:** Any polyester resin operation shall comply with the following requirements, as applicable:

501.1 Maintain a list of resin, catalyst, and cleaning material used.

501.2 Maintain a list of the weight of VOC (in percent) in the polyester resin materials and the grams of VOC per liter for the cleaning materials.

501.3 For vapor suppressed resins, maintain a list of the weight loss (grams per square meter) during resin polymerization, the monomer percentage, and the gel time for each resin.

501.4 Maintain records on a daily basis that provide the following information as applicable:

a. the amount of each of the polyester resin materials and cleaning materials used.

b. the volume of resin and cleaning materials used for touch-up and repair.

501.5 Such records shall be retained and available for inspection by the APCO for the previous 24-month period.

8-50-502 **Approved Emission Control System, Recordkeeping Requirements:** Any person operating an approved emission control system to comply with Section 8-50-303 shall record key system operating parameters on a daily basis.

(Adopted June 15, 1994)

8-50-600 MANUAL OF PROCEDURES

8-50-601 Analysis of Samples: Samples from polyester resin operations shall be analyzed as follows:

601.1 Samples of gel coat as specified in Sections 8-50-307 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 26.

601.2 Samples of cleaning materials as specified in Section 8-50-305.4 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 31.

601.3 Samples of polyester resin material as specified in Sections 8-50-301 and 304 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 23.

601.4 Samples containing parachlorobenzotrifluorides shall be analyzed as prescribed in the Manual of Procedures (MOP), Vol. III, Method 41. Samples containing volatile methylsiloxanes shall be analyzed as prescribed in the MOP, Vol. III, Method 43. (Amended November 6, 1996)

8-50-602 Determination of Emissions: Emissions from polyester resin operations as specified in Section 8-50-303 shall be analyzed as prescribed by any of the following methods: 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. For the purpose of determining abatement device efficiency, any acetone, PCBTF or VMS shall be included as volatile organic compounds. A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule.

(Amended June 15, 1994; November 6, 1996)

REGULATION 8
ORGANIC COMPOUNDS
RULE 51
ADHESIVE AND SEALANT PRODUCTS

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REGULATION 8
ORGANIC COMPOUNDS
RULE 51
ADHESIVE AND SEALANT PRODUCTS

(Adopted November 18, 1992)

8-51-100 GENERAL

8-51-101 Description: The purpose of this Rule is to limit the emissions of organic compounds from adhesive and sealant products. Any operation determined to be exempt from the provisions of this Rule shall be subject to the provisions of Rule 4, if not already subject to another Rule of Regulation 8.

8-51-111 Exemption, Aerosol Adhesive Products: The provisions of this Rule shall not apply to aerosol adhesive products as defined in Section 8-51-204.

(Amended 11/16/94; 1/7/98; 5/2/01)

8-51-112 Exemption, Aerospace and Undersea-based Weapons Systems Components: The provisions of this Rule shall not apply to the use of adhesive or sealant products in the manufacture or repair of aerospace or undersea-based weapons systems components.

8-51-113 Exemption, Consumer Adhesives : The requirements of this Rule shall not apply to adhesives subject to the California Air Resources Board consumer products regulation found in Title 17 of the California Code of Regulations, beginning at Section 94507.

(Amended 6/5/96; 1/7/98)

8-51-114 Exemption, Low Usage: The requirements of Section 8-51-302 shall not apply to the combined use of non-complying adhesive products at a facility in a volume of less than 75.7 liters (20 gallons) in any calendar year.

(Amended June 5, 1996)

8-51-115 Exemption, Low VOC Adhesive or Sealant Products: The requirements of this Rule shall not apply to any adhesive or sealant product with a VOC content, as defined in Section 8-51-226, of less than 20 grams per liter of VOC.

(Amended January 7, 1998)

8-51-116 Exemption, Medical Equipment Manufacturing: The requirements of this Rule shall not apply to the use of adhesive products in the manufacture of medical equipment.

(Amended June 5, 1996)

8-51-117 Exemption, Research and Development Operations: Except for the recordkeeping requirement of Section 8-51-501.1.a, the provisions of this Rule shall not apply to the testing and evaluation of adhesive or sealant products in research and development laboratories, quality assurance laboratories, or analytical laboratories, or to research and development facilities which produce only non-commercial products solely for research and development purposes.

(Amended 11/16/94; 5/2/01)

8-51-118 Exemption, Specific Operations: The requirements of this Rule shall not apply to the use of adhesives in the following operations.

118.1 Adhesives and sealants applied in Metal, Can and Coil Operations subject to Regulation 8, Rule 11.

118.2 Adhesives applied to Paper, Fabric and Film subject to Regulation 8, Rule 12.

118.3 Adhesive and sealant products applied in Light and Medium Duty Motor Vehicle Assembly Plants subject to the requirements of Regulation 8, Rule 13.

118.4 Adhesives applied in Graphic Arts Operations subject to the requirements of Regulation 8, Rule 20.

118.5 Adhesives applied in Flat Wood Paneling Operations subject to the requirements of Regulation 8, Rule 23.

8-51-119 **Exemption, Tire Repair:** The requirements of this Rule shall not apply to adhesive or sealant products used in tire repair provided the label conspicuously states "For Tire Repair Use Only."

8-51-120 **Exemption, Prohibition of Sale:** The requirements of Section 8-51-307 shall not apply to the following:

120.1 Adhesive and sealant products shipped, supplied or sold to persons outside the District for use outside the District.

120.2 Adhesive or sealant products sold to any person who complies with the requirements of Section 8-51-305.

120.3 Any manufacturer of adhesive or sealant products, provided the manufacturer has provided the maximum VOC content and category information for the product and the product was not sold directly to a user or a sales outlet located in the District, or the product was sold to an independent distributor located in the District that is not a subsidiary of, or under the direct control of the manufacturer.

120.4 The VOC limits for "Contact Bond Adhesives" in Section 8-51-301.4, provided, however, that no person shall sell or offer for sale any contact bond adhesive with a VOC content that exceeds 540 grams per liter.

(Adopted 11/16/94; Amended 1/7/98; 5/2/01)

8-51-121 **Exemption, ABS, CPVC, PVC and Plastic Welding Cement Primers:** Until August 1, 2001 the requirements of this rule shall not apply to adhesive primer used in conjunction with ABS, CPVC, PVC, and other plastic welding adhesive applications.

(Adopted 11/16/94; Amended 5/2/01)

8-51-122 **Deleted January 7, 1998**

8-51-123 **Exemption, Small Container:** The requirements of this Rule shall not apply to any adhesive or sealant product sold in units of product, less packaging, that weigh one pound or less or contain 16 fluid ounces or less except that, effective August 1, 2001, this exemption shall not apply to plastic welding adhesive and plastic welding adhesive primer.

(Adopted 6/5/96; Amended 5/2/01)

8-51-124 **Exemption, Consumer Contact Bond Adhesive:** The requirements of Section 8-51-301.4 shall not apply to contact bond adhesives that are subject to the Consumer Product Safety Commission regulations in 16 C.F.R. Part 1302, that have a flash point greater than 20° F. as determined pursuant to those regulations, that are sold in packages that contain 3.79 liters (1 gallon) or less, and that are used at a home, a construction site, or at any location other than in a facility, as defined in Regulation 1.

(Adopted 6/5/96; Amended 1/7/98)

8-51-125 **Limited Exemption, Low Usage of Contact Bond Adhesive:** The requirements of Section 8-51-301.4 shall not apply to a facility that uses no more than 55 gallons of contact bond adhesive in a twelve month period, provided that the VOC content, as defined in Section 8-51-226, of the adhesive used does not exceed 540 grams per liter.

(Adopted 1/7/98; Amended 5/2/01)

8-51-126 **Limited Exemption, Facilities Using Contact Bond Adhesive Primarily for Special Substrates:** Where 80% or more of the annual contact bond adhesive use at a single facility meets the definition in Section 8-51-249 of "Contact Bond Adhesive - Special Substrates," the applicable limit in Section 8-51-301.4 shall apply to all contact bond adhesive usage at the facility.

(Adopted January 7, 1998)

8-51-127 **Exemption, Large Tire Retreading:** The requirements of Section 8-51-301 shall not apply to the use of tire retread adhesive in retreading off-the-road and industrial tires that are rated or used for non-highway service and have a minimum nominal rim diameter of 20 inches.

(Adopted January 7, 1998)

8-51-128 **Exemption, Self-Curing Adhesives and Sealants With Reactive Diluents:** The requirements of this rule shall not apply to self-curing adhesives and sealants with reactive diluents.

(Adopted January 7, 1998)

8-51-200 DEFINITIONS

8-51-201 Adhesive: Any material which is applied for the primary purpose of bonding two surfaces together by surface attachment.

(Amended June 5, 1996)

8-51-202 Adhesive Primer: Any material which is applied to a substrate prior to the application of an adhesive to provide a bonding surface.

8-51-203 Adhesive Product: For the purposes of this Rule, an adhesive product includes, but is not limited to, the following products: adhesives, glues, cements, mastic, adhesive primers.

8-51-204 Aerosol Adhesive: An adhesive subject to the California Air Resources Board consumer products regulation found in Title 17 of the California Code of Regulations, beginning at Section 94507, that is packaged as an aerosol product in which the spray mechanism is permanently housed in a nonrefillable can designed for hand-held application without the need for ancillary hoses or spray equipment.

(Amended May 2, 2001)

8-51-205 Aerospace Component: For the purposes of this Rule, the fabricated part, assembly of parts or completed unit of any aircraft, helicopter, missile, or space vehicle, including passenger safety equipment.

8-51-206 Approved Emission Control System: A system for reducing emissions of volatile organic compounds to the atmosphere, consisting of a control device and a collection system that meets the requirements of Regulation 2, Rule 1, and achieves the overall abatement efficiency specified in the applicable standards section at all times during operation of the equipment being controlled.

(Amended November 16, 1994)

8-51-207 Architectural: Stationary structures and their appurtenances, including mobile homes. Appurtenances to an architectural structure include but are not limited to: hand railings, cabinets, bathroom and kitchen fixtures, fences, rain gutters and down spouts, and windows.

8-51-208 Drywall Installation: The installation of gypsum drywall to studs or solid surfaces.

8-51-209 Indoor Floor Covering Installation: The installation of wood flooring, indoor carpet, resilient tile, vinyl tile, vinyl backed carpet, resilient sheet and roll, or artificial grass.

(Amended 11/16/94; 5/2/01)

8-51-210 Deleted May 2, 2001

8-51-211 Medical Equipment Manufacturing: The manufacture of medical devices, such as, but not limited to, catheters, heart valves, blood cardioplegia machines, tracheostomy tubes, blood oxygenators, and cardiatory reservoirs.

8-51-212 Multipurpose Construction: The installation or repair of various construction materials using adhesives, including but not limited to drywall, subfloor, panel, fiberglass reinforced plastic (FRP), ceiling tile, acoustical tile.

(Amended 11/16/94; 5/2/01)

8-51-213 Panel Installation: The installation of plywood, predecorated hardboard, tileboard, fiberglass reinforced plastic, and similar predecorated or nondecorated panels to studs or solid surfaces.

8-51-214 Plastic: Synthetic materials chemically formed by the polymerization of organic (carbon-based) substances.

8-51-215 Deleted January 7, 1998

8-51-216 Porous Material: A material whose surface is permeable to liquids; such materials include but are not limited to foam, paper, corrugated paperboard, stone and wood.

(Amended November 16, 1994)

8-51-217 Roadways: Public streets, highways, and other surfaces, including but not limited to curbs, berms, driveways, and parking lots.

8-51-218 Sealant Products: Any material with adhesive properties that is used primarily to fill, seal, waterproof, or weatherproof gaps or joints between two surfaces. Sealant products include sealant primers and caulk.

8-51-219 Single-Ply Roof Material Installation/Repair: The installation or repair of prefabricated single-ply flexible roofing membrane that is field applied using just one layer of membrane material. The membrane itself may be manufactured from several

layers of material. Installation includes the use of adhesives and adhesive primers provided the containers are labeled exclusively for such use.

8-51-220 **Solvent:** Organic compounds which are used as diluents, thinners, dissolvers, viscosity reducers, cleaning agents, or for similar uses.

8-51-221 **Deleted November 16, 1994**

8-51-222 **Structural Glazing:** Use of an adhesive/sealant to adhere glass, ceramic, metal, stone, or composite panels to exterior building frames.

8-51-223 **Subfloor Installation:** The installation of subflooring material, typically plywood, over flooring joists. Subflooring is covered by a finish surface material.

8-51-224 **Tire Repair:** The repair of a hole, tear, fissure, or blemish in a tire casing by grinding and gouging, applying adhesive or sealant product and filling the hole or crevice with rubber.

8-51-225 **Undersea-based Weapons Systems Components:** The fabricated part, assembly of parts, or completed units of any portion of the missile launching system used on undersea ships.

8-51-226 **Volatile Organic Compound (VOC) Content:** All organic compounds (excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate) which would be emitted during use, application, curing, or drying of an adhesive or sealant product.

226.1 For the purposes of calculating the VOC content of an adhesive, sealant, or primer, water and the following compounds:

acetone
parachlorobenzotrifluoride (PCBTF)
cyclic, branched, or linear completely methylated siloxanes (VMS)
difluoroethane (HFC-152a)
methyl acetate

shall not be considered part of the product.

226.2 For the purposes of calculating the VOC content of low solids adhesives, sealants and primers, as defined in Section 8-51-234, any water shall be considered to be part of the product. The following compounds:

acetone
parachlorobenzotrifluoride (PCBTF)
cyclic, branched, or linear completely methylated siloxanes (VMS)
methyl acetate

shall not be considered part of the VOC content of the product.

(Amended 6/2/93; 1/19/94; 11/16/94; 12/20/95, 1/7/98, 5/2/01; 7/17/02)

8-51-227 **Deleted November 16, 1994**

8-51-228 **Wood Flooring Installation:** The installation of a wood floor surface, including but not limited to, parquet tiles, planks, or strip-wood.

8-51-229 **ABS Welding:** The welding of acrylonitrile styrene (ABS) plastic using a plastic welding adhesive.

(Adopted 11/16/94; Amended 5/2/01)

8-51-230 **Automotive Glass Primer:** Any adhesive primer that is applied to automotive glass prior to installation with an adhesive/sealant that improves adhesion to the pinch weld and blocks ultraviolet light.

(Adopted 11/16/94)

8-51-231 **Computer Diskette Jacket Manufacturing:** The manufacture of computer diskettes where the fold-over flaps are glued to the body of a vinyl jacket.

(Adopted November 16, 1994)

8-51-232 **CPVC Welding:** The welding of chlorinated polyvinyl chloride (CPVC) plastic using a plastic welding adhesive.

(Adopted11/16/94; Amended 5/2/01)

8-51-233 **Key System Operating Parameter:** An approved emission control system operating parameter, such as temperature, flow rate or pressure, that ensures operation of the emission control system within manufacturer specifications and compliance with the standard in Sections 8-51-305.

(Adopted November 16, 1994)

8-51-234 **Low Solids Adhesive, Sealant, and Primer:** Any adhesive, sealant, or primer that contains less than 120 grams of solids per liter of material.

(Adopted November 16, 1994)

8-51-235 **Marine Deck Sealant:** A sealant that is used to seal gaps on wooden decks of marine vessels.

(Adopted November 16, 1994)

8-51-236 **Nonmembrane Roof Installation/Repair:** Any product that is intended for the installation or repair of roofs and that is not intended for the installation of prefabricated single-ply roofing membrane, including but not limited to plastic or asphalt roof cement, asphalt roof coatings, or cold application cement.

(Adopted November 16, 1994)

8-51-237 **Outdoor Floor Covering Installation:** The installation of floor covering, except ceramic tile, that is not in an enclosure and is exposed to ambient weather conditions during normal use.

(Adopted November 16, 1994)

8-51-238 **Rubber:** Any natural or man-made rubber substrate, including but not limited to styrene-butadiene (SBR), polychloroprene (neoprene), butyl rubber, nitrile rubber, chlorosulfonated polyethylene (CSM), urethane, and ethylene propylene diene terpolymer (EPDM).

(Adopted 11/16/94; Amended 5/2/01)

8-51-239 **Thin Metal Laminating:** The process of bonding multiple layers of metal to metal or metal to plastic in the production of electronic or magnetic components in which the thickness of the bond line(s) is less than 0.25 mils.

(Adopted 11/16/94; Amended 5/2/01)

8-51-240 **Tire Retreading:** The process of attaching a new tread to a tire through any tire retreading procedure, including but not limited to, mold curing, hot capping, and cold process.

(Adopted11/16/94; Amended 5/2/01)

8-51-241 **Plastic Welding Adhesive:** Any adhesive, including ABS, CPVC, and PVC welding adhesive, which is used to dissolve the surface of plastic to form a bond between mating surfaces.

(Adopted11/16/94; Amended 5/2/01)

8-51-242 **Contact Bond Adhesive:** An adhesive that forms an instantaneous, non-repositionable bond when substrates, on which the adhesive was applied and allowed to dry, are brought together using momentary pressure.

(Adopted June 5, 1996)

8-51-243 **Waterproof Resorcinol Glue:** A two-part, resorcinol-resin-based adhesive designed for applications where the bond line must be resistant to conditions of continuous immersion in fresh or salt water.

(Adopted June 5, 1996)

8-51-244 **Pavement Marking Tape Primer:** An adhesive primer designed for application to pavement prior to the application of adhesive-backed pavement marking tape.

(Adopted June 5, 1996)

8-51-245 **Deleted May 2, 2001**

8-51-246 **Deleted May 2, 2001**

8-51-247 **Self-Curing Adhesives and Sealants with Reactive Diluents:** A cyanoacrylate or silicone-based adhesive or sealant with a reactive diluent content of at least 95% by weight.

(Adopted January 7, 1998)

8-51-248 **Reactive Diluent:** A liquid reactant that is part of an adhesive or sealant prior to cure and that reacts to become part of the solid adhesive or sealant during cure.

(Adopted January 7, 1998)

8-51-249 **Contact Bond Adhesive - Special Substrates:** A contact bond adhesive that is used for the bonding of nonporous substrates to each other; the bonding of decorative laminate in postforming operations; or the bonding of any substrate to one of the following substrates: metal, rubber, flexible vinyl, rigid plastic, wood veneer not exceeding 1/16" in thickness, or melamine-covered board.

(Adopted 1/7/98; Amended5/2/01)

8-51-250 **Ceramic Tile Installation:** The installation of ceramic tiles.

(Adopted May 2, 2001)

8-51-251 **Cove Base Installation:** The installation of cove base (or wall base), which is generally made of vinyl or rubber, on a wall or vertical surface at floor level.

(Adopted May 2, 2001)

8-51-252 **PVC Welding:** The welding of polyvinyl chloride (PVC) plastic using a plastic welding adhesive.

(Adopted May 2, 2001)

8-51-253 **Perimeter Bonded Sheet Vinyl Flooring Installation:** The installation of sheet flooring with vinyl backing onto a nonporous substrate using an adhesive designed to be applied only to a strip of up to four inches wide around the perimeter of the sheet flooring.

(Adopted May 2, 2001)

8-51-254 **Top and Trim Installation:** The installation of automotive, marine, or aeronautical trim, including, but not limited to, headliners, vinyl tops, vinyl trim, dash covering, door covering, floor covering, panel covering, and upholstery.

(Adopted May 2, 2001)

8-51-255 **Immersible Product Manufacturing:** The manufacture of products intended for immersion in liquids, including wetsuits, rubber fuel bladders, inflatable boats, and life preservers.

(Adopted May 2, 2001)

8-51-256 **Rubber Vulcanization Bonding:** The bonding of rubber to metal, rubber, or polyester or nylon fabrics during one or more of the following vulcanization processes: (1) molded vulcanization - the application of heat and pressure to uncured rubber in a mold; (2) sheet-applied vulcanization - the application of heat after rubber stock sheets have been adhered to the walls of tanks, tankers, elbow joints, protective earthquake building pads, or rail cars; or the application of heat after one or more layers of rubber stock sheets have been built up to form a rubber product; (3) cold vulcanization - the chemical reaction of an adhesive with rubber stock sheets that are adhered to earthmoving equipment, other high impact/abrasion devices, or industrial belting devices, without the application of heat or pressure. Rubber vulcanization bonding does not include tire retreading.

(Adopted May 2, 2001)

8-51-257 **Pre-formed Rubber Product:** Any rubber product that has undergone a vulcanization process and is in its final state for further use and is not intended to be further vulcanized.

(Adopted May 2, 2001)

8-51-300 **STANDARDS**

8-51-301 **Adhesive Product, Application Limits:** Except as provided in Section 8-51-305, a person shall not use in the following applications any adhesive product with a VOC content, as defined in Section 8-51-226, that exceeds the following VOC limits (expressed as grams of VOC per liter):

			Effective 8/1/01
301.1	**Architectural:**		
	Indoor Floor Covering Installation	150	
	Multipurpose Construction	200	
	Nonmembrane Roof Installation/Repair	300	
	Outdoor Floor Covering Installation	250	
	Single-Ply Roof Material Installation/Repair	250	
	Structural Glazing	100	
	Ceramic Tile Installation	200	130
	Cove Base Installation	200	150
	Perimeter Bonded Sheet Vinyl Flooring Installation	660	
301.2	**Specialty:**		
	Computer Diskette Jacket Manufacturing	850	

ABS Welding	400
CPVC Welding	490
PVC Welding	510
Other Plastic Welding	500
Thin Metal Laminating	780
Tire Retread	100
Rubber Vulcanization Bonding	850
Waterproof Resorcinol Glue	170
Immersible Product Manufacturing	650
Top and Trim Installation	540

301.3 Adhesive Primers:

		Effective 8/1/01
Automotive Glass Primer	700	
Pavement Marking Tape Primer	550	150
Plastic Welding Primer	-	650
Other	250	

301.4 Contact Bond Adhesive:

Contact Bond Adhesive	250
Contact Bond Adhesive - Special Substrates	400

(Amended 11/16/94; 6/5/96; 1/7/98; 5/2/01)

8-51-302 Adhesive Product, Substrate Limits: Except as provided in Sections 8-51-301 and 305, a person shall not use with the following substrates or substrate combinations any adhesive product with a VOC content, as defined in Section 8-51-226, that exceeds the following limits (expressed as grams of VOC per liter):

		Effective 8/1/01
Metal	30	
Porous Materials	150	120
Wood	150	120
Pre-formed Rubber Products	650	250
All Other Substrates	250	

If an adhesive product is used to bond two different substrates from the table above, the limit for the substrate with the highest VOC content shall apply.

(Amended 11/16/94; 6/5/96; 1/7/98; 5/2/01)

8-51-303 Deleted May 2, 2001

8-51-304 Sealant Product Limits: Except as provided in Section 8-51-305, a person shall not use in the following applications any sealant product with a VOC content, as defined in Section 8-51-226, that exceeds the following limits (expressed as grams of VOC per liter):

Sealant:	
Architectural	250
Marine Deck	760
Roadways	250
Single Ply Roof Material Installation/Repair	450
Nonmembrane Roof Installation/Repair	300
Other	420
Sealant Primer:	
Architectural - Nonporous	250
Architectural - Porous	775
Other	750

(Amended 11/16/94; 6/5/96; 1/7/98; 5/2/01)

8-51-305 **Approved Emission Control System:** The limits of Section 8-51-301, 302 or 304 shall not apply when emissions to the atmosphere are controlled to an equivalent level by an APCO approved emission control system that has an overall abatement efficiency of at least 85 percent. Where incineration is used to control emissions, at least 90 percent of the organic carbon shall be oxidized to carbon dioxide.

8-51-306 **Prohibition of Specification:** No person shall require for use or specify the application of an adhesive or sealant product subject to this Rule if such use or application results in a violation of any of the standards of this Rule. The prohibition of specification shall apply to all written or oral contracts under the terms of which any adhesive product is to be applied at any physical location within the District.

8-51-307 **Prohibition of Sale:** Except as provided in Section 8-51-120, no person shall sell, or offer for sale any adhesive or sealant product that does not meet the VOC limits as specified in Sections 8-51-301 and 304.

(Adopted11/16/94; Amended 1/7/98; 5/2/01)

8-51-308 **Limits for Pressurized Containers:** Adhesive and sealant products that are not aerosol adhesives as defined in Section 8-51-204 but are supplied in pressurized containers from which adhesive or sealant is expelled by a propellant are subject to the VOC limits in Sections 8-51-301, 302, and 304 of this Rule.

(Adopted May 2, 2001)

8-51-320 **Solvent Evaporative Loss Minimization:** The requirements of this section shall apply to any person using organic solvent for surface preparation and cleanup or to any person mixing, using, or disposing of adhesive or sealant product containing organic solvent.

320.1 A person shall use closed containers for the storage or disposal of cloth or paper used for solvent surface preparation and cleanup.

320.2 A person shall store fresh or spent solvent in closed containers.

320.3 A person shall not use organic compounds for the cleanup of mixing, storage, or spray equipment unless equipment for collecting the cleaning compounds and minimizing their evaporation to the atmosphere is used.

320.4 A person shall not leave containers of adhesive product, sealant product, or thinner open to the atmosphere when not in use.

8-51-400 **ADMINISTRATIVE REQUIREMENTS**

8-51-401 **Date of Manufacture:** Containers for all adhesive and sealant products subject to this Rule shall display the date of manufacture of the contents or a code indicating the date of manufacture. If a code is used, the manufacturers of such products shall file with the APCO an explanation of each code.

8-51-402 **Labeling Requirement:** Each container of adhesive or sealant product subject to this Rule and manufactured after July 1, 1994, shall display the VOC content, as defined in Section 8-51-226, of the adhesive or sealant product as supplied.

(Amended 11/16/94; 5/2/01)

8-51-403 **Deleted January 7, 1998**

8-51-404 **Deleted November 16, 1994**

8-51-500 **MONITORING AND RECORDS**

8-51-501 **Stationary Source, Recordkeeping Requirement:** Any person operating a source of adhesive or sealant emissions subject to Regulation 2, Rule 1 shall:

501.1 Maintain a current list of adhesive or sealant products in use which provides all of the data necessary to evaluate compliance, including the following, as applicable:

a. Identification of each product by manufacturer, product name, and manufacturer's product number.

b. VOC content of each product as supplied.

c. Mix ratio of components in the product used, and final VOC content as applied.

d. Identification of specialty limit category and/or exemption that applies to each product.

501.2 Except as provided in Section 8-51-501.3, record facility-wide usage on a monthly basis for each adhesive or sealant product applied.

501.3 For a facility that emits 330 pounds per month or more of total VOC emissions from the use of adhesive and sealant products subject to this Rule, maintain, in addition to the records required by Section 8-51-501.2, daily records of the use, pursuant to Section 8-51-114, of any products that do not comply with the VOC limits in the Rule.

501.4 Retain and have all records available for inspection by the APCO for the previous 24-month period, unless a longer period is specified in an applicable permit.

(Amended 11/16/94; 6/5/96; 1/7/98; 5/2/01)

8-51-502 Alternative Recordkeeping Requirements: In lieu of meeting the monthly recordkeeping requirements of Sections 8-51-501.2, a person may use an alternative recordkeeping plan under the following circumstances:

502.1 The plan is for a government or university research facility that:

a. For activities not exempt pursuant to Section 8-51-117, uses only adhesives and sealants that comply with the VOC limits in the Rule;

b. Uses adhesives or sealants in five or more buildings on the facility site; and

c. Tracks their distribution and use through a centralized information system.

502.2. The person meets each of the following requirements:

a. A written petition that includes a description of the facility, a description of the facility's centralized information system, a list of adhesive and sealant products used by the facility, and an estimate of the monthly usage for each adhesive and sealant product shall be submitted to and approved by the APCO prior to implementing the plan.

b. The monthly total quantity of each adhesive and sealant product purchased or acquired shall be recorded.

c. The annual total usage of each adhesive and sealant product shall be reported at the time the facility's permit to operate is renewed.

502.3. A violation of Sections 8-51-301, 302, or 304 within the annual reporting period allowed by Section 8-51-502.2 shall be presumed to be a violation for each day of the reporting period up to the day the violation is discovered, but a person may rebut this presumption by presenting evidence, such as usage records, purchase orders, work orders, contracts, or other documents which demonstrate that the violation did not occur on each day of the reporting period.

(Adopted May 2, 2001)

8-51-503 Approved Emission Control System, Recordkeeping Requirement: Any person that installs an approved emission control system, subject to Sections 8-51-305 shall:

502.1 Record on a daily basis the amount of adhesive or sealant product, and solvent used.

502.2 Record on a daily basis applicable key system operating parameter(s).

502.3 Retain and have such records available for inspection by the APCO for the previous 24-month period.

(Amended 11/16/94; Renumbered 5/2/01)

8-51-504 Burden of Proof: Any facility claiming the low usage exemption pursuant to Sections 8-51-114 or 125, the low VOC product exemption pursuant to Section 8-51-115, or the substrate exemption pursuant to Section 8-51-126 must have information available, such as purchase orders, material safety data sheets, work orders, or contracts, that would allow the APCO to verify eligibility for the exemption.

(Amended 1/7/98; Renumbered 5/2/01)

8-51-600 MANUAL OF PROCEDURES

8-51-601 Analysis of Samples: The VOC content of adhesive and sealant products shall be analyzed for compliance with the limits specified in Sections 8-51-115, 125, 126, 301, 302, and 304 using Manual of Procedures, Volume III, Method 21 or 22. The VOC content of low solids adhesive, sealant products or primers as defined in Section 8-51-234 shall be analyzed using Manual of Procedures, Volume III, Method 31. Samples containing parachlorobenzotrifluoride shall be analyzed using Manual of Procedures, Volume III, Method 41. Samples containing cyclic, branched, or linear completely methylated siloxanes shall be analyzed using Manual of Procedures, Volume III, Laboratory Method 43: "Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials." Samples containing methyl acetate shall be analyzed using ASTM Method D-6133-00: "Standard Test Method for Acetone, PCBTF, Methyl Acetate or t-Butyl Acetate Content of Solvent-Reducible and Water Reducible Paints, Coatings, Resins, and Raw Materials by Direct Injection Into a Gas Chromatograph."

(Amended 1/19/94; 6/5/96;1/7/98; 5/2/01; 7/17/02)

8-51-602 Determination of Control and Collection Efficiency: The control and capture efficiency of an approved emission control system as referenced in Section 8-51-305 shall be measured by any of the following methods: (1) BAAQMD Manual of Procedures, Volume IV, ST-7, (2) EPA Method 25 or 25A. When either EPA Method 25 or 25 A is used, capture efficiency shall be determined as prescribed in EPA's Guidelines for Determining Capture Efficiency, dated January 9, 1995. For the purpose of determining abatement device efficiency, any acetone, PCBTF, or VMS shall be included as volatile organic compounds. A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule.

(Amended 11/16/94; 6/5/96;1/7/98)

8-51-603 Analysis of Plastic Welding Adhesives: The VOC content of ABS, CPVC, PVC or other plastic welding adhesives shall be analyzed for compliance with the limits specified in Section 8-51-301 using Manual of Procedures, Volume III, Method 40.

(Adopted 6/5/96; Amended 1/7/98; 5/2/01)

REGULATION 8
ORGANIC COMPOUNDS
RULE 52
POLYSTYRENE, POLYPROPYLENE AND POLYETHYLENE FOAM PRODUCT MANUFACTURING OPERATIONS

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ORGANIC COMPOUNDS
RULE 52
POLYSTYRENE, POLYPROPYLENE, AND POLYETHYLENE FOAM PRODUCT MANUFACTURING OPERATIONS

(Adopted July 7, 1999)

8-52-100 GENERAL

8-52-101 **Description:** The purpose of this Rule is to limit the emissions of volatile organic compounds (VOC) from the manufacture of foam products composed of polystyrene, polyethylene or polypropylene.

8-52-110 **Exemption, Polymer or Resin Manufacturing:** The requirements of this Rule shall not apply to operations performed to manufacture polymers or resins. Such manufacturing operations are subject to the applicable provisions of District Regulation 2, Regulation 10, and Regulation 8, Rule 36.

8-52-111 **Exemption, Use of Non-VOC Blowing Agent:** The requirements of this Rule shall not apply to any polystyrene, polyethylene or polypropylene foam product manufacturing operation where a VOC blowing agent is not used, provided the person claiming this exemption satisfies the requirements of Section 8-52-504.

8-52-112 **Exemption, Solid Product Manufacturing:** The requirements of this Rule shall not apply to operations performed to manufacture non-foam solid polystyrene, polyethylene or polypropylene products, provided the person claiming this exemption satisfies the requirements of Section 8-52-504. Such operations are subject to the applicable provisions of District Regulation 2 and Regulation 8, Rule 2.

8-52-113 **Limited Exemption, Recycled Polystyrene Foam Processes:** The requirements of Section 8-52-302 shall not apply to equipment or operations performed to process expanded polystyrene foam waste into recycled polystyrene pellets, which are subsequently used to manufacture recycled polystyrene loose fill. Such operations are subject to the applicable provisions of District Regulation 2 and Regulation 8, Rule 2.

8-52-114 **Limited Exemption, Loose Fill Research and Development:** The requirements of Section 8-52-302 shall not apply to equipment used exclusively to research and/or develop recycled polystyrene loose fill production processes. Such equipment is subject to the applicable provisions of District Regulation 2 and Regulation 8, Rule 2.

8-52-115 **Limited Exemption, Shape and Block Molding, Low Throughput:** The requirements of subsection 8-52-301.2 shall not apply to expandable polystyrene shape and block molding product manufacturing operations that process less than 1,000,000 pounds of expandable polystyrene beads in any consecutive 12-month period, provided all VOC emissions from expandable bead storage, expansion and intermediate pre-puff storage/aging are controlled by an approved emission control system that satisfies the requirements of Section 8-52-304 and achieves a capture and control efficiency of at least 85 percent by weight.

8-52-200 DEFINITIONS

8-52-201 **Approved Emission Control System:** A system for reducing emissions of volatile organic compounds to the atmosphere, consisting of an abatement device and a collection system that meets the requirements of Regulation 2, Rule 1, and achieves the control efficiency specified in the applicable standards section at all times for the operation being controlled.

8-52-202 **Blowing Agent:** Any liquid, gaseous or solid substance that alone or in conjunction with other substances is capable of producing a cellular (foam) structure in a polymeric material.

8-52-203 **Expandable Polystyrene Molding:** A series of processes where expandable polystyrene beads, which are polystyrene resin particles impregnated with blowing agent, undergo expansion, aging and then cup, shape or block molding to form a low-density foam product. During expansion, the beads are expanded to the appropriate desired density by exposure to steam or hot air in a pre-expander. During aging, the expanded beads (or pre-puff) are transferred to storage silos or mesh bags to stabilize and dry. During molding, the aged pre-puff is exposed to heat in a closed mold that causes the beads to soften, re-expand, and fuse together to form the shaped product. For the purposes of this Rule, cup molding refers to the molding of cups and containers such as bowls.

8-52-204 **Extrusion:** The process in which a plastic resin is melted in an extruder and continuously forced through a die opening shaped like the finished product. As it leaves the die opening, the extruded plastic melt partially expands and is then drawn by a puller through forming equipment that sizes, cools, and cuts the product to length or winds it into a roll. With extruded foam products, expandable beads are used as the raw material or blowing agent is injected under pressure directly into the extruder where it mixes with the plastic melt.

8-52-205 **Foam:** A solid material in a lightweight cellular form (having internal voids or cavities called cells that contain air or a gas) resulting from the introduction or generation of gas bubbles throughout its mass during processing.

8-52-206 **Foam Board:** A form of expanded thermoplastic foam that is manufactured by an extrusion process that injects blowing agent into the extruder and uses a slit aperture die that forms a slab, or by a block molding process using expandable beads. For the purposes of this Rule, a foam board product includes foam board and those products made from foam board.

8-52-207 **Foam Sheet:** A form of thermoplastic foam that is manufactured by a tubular extrusion process using expandable beads or by extrusion with blowing agent injected into the extruder. For the purposes of this Rule, a foam sheet product includes foam sheet and those products made from foam sheet.

8-52-208 **Loose Fill:** A form of expanded polystyrene foam, which is used as a protective packaging material because of its low density (less than 0.5 lbs/ft^3), resiliency, and cushioning characteristics. This material is primarily manufactured with a series of steam expansion and aging (or curing) processes using expandable polystyrene beads as the raw material. When recycled polystyrene is used as the raw material, extrusion (with blowing agent injected directly into an extruder) and forming processes partially expand, shape, and cut the plastic material prior to the expansion and aging processes.

8-52-209 **Polyethylene:** Any grade, class, or type of thermoplastic polymer, copolymer, interpolymer, alloy, or blend, or of cross-linked thermoset polymer, composed primarily of polymerized ethylene.

8-52-210 **Polymer:** A high molecular weight organic compound that is formed by the polymerization of small molecules or monomers and that has a chemical structure represented by repeating units. When two or more different monomers polymerize, a copolymer is formed.

8-52-211 **Polypropylene:** Any grade, class, or type of thermoplastic polymer, copolymer, interpolymer, alloy, or blend, or of cross-linked thermoset polymer, composed primarily of polymerized propylene.

8-52-212 **Polystyrene:** Any grade, class, or type of thermoplastic polymer, copolymer, interpolymer, alloy, or blend composed primarily of polymerized styrene.

8-52-213 **Product Manufacturing Operation:** A production line or lines consisting of all steps in the processing of a polymer or resin, from the receipt of raw polymeric material by the manufacturing facility through the final step prior to shipment of the finished foam product that results in a change in the form, chemical composition, or any chemical or physical property of the material, and that results in VOC emissions to the atmosphere. Individual steps include, but are not limited to, expandable bead storage, finished product storage/aging, extrusion, expansion, softening or annealing, intermediate (pre-puff) storage/aging, decomposition, molding, grinding, and forming.

For the purposes of this rule, polyethylene and polypropylene foam product manufacturing operations shall include all processes from and including expandable bead storage through and including 24 hours of finished product storage/aging.

8-52-214 **Raw Material:** All polystyrene, polyethylene and polypropylene, and blowing agent used in the manufacture of foam products, including virgin and recycled polymeric materials.

8-52-215 **Resin:** Any of a class of solid or semisolid products of natural or synthetic origin, generally of high molecular weight with no definite melting point. Most resins are polymers or copolymers.

8-52-216 **Solid:** A state of matter that has a crystalline or amorphous structure, a rigidity of form and tendency to maintain a definite shape, and whose uniformly compact interior results from the close proximity of the component atoms, ions, or molecules and the strength of the forces between them.

8-52-217 **Volatile Organic Compound (VOC):** Any organic compound (excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate) which would be emitted from a foam product manufacturing operation subject to this Rule.

217.1 For the purposes of determining emissions, the following organic compounds:
pentafluoroethane (HFC-125)
1,1,2,2-tetrafluoroethane (HFC-134)
1,1,1,2-tetrafluoroethane (HFC-134a)
1,1-difluoroethane (HFC-152a)
acetone
ethane

shall not be considered a VOC subject to this Rule.

8-52-300 **STANDARDS**

8-52-301 **Polystyrene Foam Product Manufacturing Operations:** Effective June 1, 2000, except as provided in Sections 8-52-111, 115 and 302, a person shall not manufacture polystyrene foam products within the District unless, for each 100 pounds of raw material processed, VOC emissions, which include emissions from the product manufacturing operation and residual blowing agent in the finished foam product, do not at any time exceed:

301.1 2.8 pounds for expandable polystyrene cup molding product manufacturing operations; or

301.2 2.7 pounds for expandable polystyrene shape and block molding product manufacturing operations; or

301.3 2.4 pounds for loose fill product manufacturing operations; or

301.4 2.4 pounds for extruded polystyrene foam board and sheet product manufacturing operations.

8-52-302 **Recycled Polystyrene Loose Fill Product Manufacturing Operations:** Effective June 1, 2000, a person manufacturing loose fill from recycled polystyrene shall capture at least 50% by weight of the total VOCs added to the product manufacturing operation. The captured emissions shall be vented to an abatement device with a control efficiency of at least 98% by weight at all times.

8-52-303 **Polyethylene and Polypropylene Foam Product Manufacturing Operations:** Effective June 1, 2000, except as provided in Section 8-52-111, a person shall not manufacture polyethylene or polypropylene foam products within the District unless at least 85% by weight of the VOC emissions from the product manufacturing operation are captured and vented to an abatement device with a control efficiency of at least 98% by weight at all times.

8-52-304 **Approved Emission Control System:** A person subject to the limits in Sections 8-52-301, 302 or 303 may comply by using an approved emission control system. Where incineration is used to control emissions, at least 98 percent by weight of the organic carbon shall be oxidized to carbon dioxide.

8-52-400 ADMINISTRATIVE REQUIREMENTS

8-52-401 **Compliance Schedule:** A person subject to this Rule shall comply with the following increments of progress:

401.1 By November 15, 1999, submit to the APCO an application for an Authority to Construct and a Permit to Operate new or modified equipment to achieve compliance with this Rule.

401.2 By June 1, 2000, be in full compliance with this Rule.

8-52-500 MONITORING AND RECORDS

8-52-501 **Records:** Effective June 1, 2000, a person subject to this Rule shall comply with the following requirements, as applicable:

501.1 Maintain current data that provides the following information:

a. The type of resin(s) and blowing agent(s) used in product manufacturing operations; and

b. The amount of polymerized styrene, ethylene, propylene, and blowing agent in each resin formulation used in percent by weight as indicated by the specifications of the foam product manufacturer, and the manufacturer or supplier of the raw polymeric material.

501.2 Maintain monthly records of the amount of each raw polymeric material processed, the amount of each finished foam product manufactured, the amount of each VOC blowing agent used, and the hours of operation.

501.3 Such records shall be retained for the previous 24-month period and shall be made available for inspection by the APCO upon request.

8-52-502 **Polyethylene and Polypropylene VOC Loss Data:** A person manufacturing polyethylene and polypropylene foam using a VOC blowing agent shall maintain data showing the VOC loss from the product manufacturing operation for each type of resin used, expressed as a weight percent of the initial VOC blowing agent concentration. This VOC loss data shall be established at the time of source testing for a Permit to Operate. All supporting documentation related to this information shall also be maintained.

8-52-503 **Approved Emission Control System, Recordkeeping Requirements:** A person operating an approved emission control system to comply with Section 8-52-301, 302 or 303 shall record key system operating parameters such as temperature, flow rate, and pressure on a daily basis.

8-52-504 **Extruder Blowing Agent Injection Rate, Monitoring:** A person operating an extruder into which VOC blowing agent is injected shall install and maintain in good working order a device which continuously records the blowing agent injection rate(s) at all times during extrusion. Such monitoring devices, which include but are not limited to mass flow meters and recorders, shall be calibrated according to the procedures recommended by the instrumentation manufacturer or at least twice in any consecutive 12-month period, and meet manufacturer's specifications for accuracy and precision. Records and calibration dates shall be maintained for the previous 24-month period and shall be made available for inspection by the APCO upon request.

8-52-505 **Burden of Proof:** A person claiming any exemption in this Rule must have the information available, such as raw material used, laboratory analyses, technical data sheets or source test results, that would allow the APCO to verify eligibility for the exemption.

8-52-600 MANUAL OF PROCEDURES

8-52-601 **Analysis of Samples:** The VOC content and exempt compound content of raw polymerized materials subject to this Rule shall be analyzed using BAAQMD Manual of Procedures, Volume III, Method 22, and South Coast Air Quality Management District (SCAQMD) Test Method 306-91.

8-52-602 **Determination of Emissions:** The capture and control efficiency of an approved emission control system as referenced in Sections 8-52-301, 302 and 303 shall be measured by any of the following methods: 1) BAAQMD Manual of Procedures, Volume IV, ST-7, or 2) EPA Method 25 or 25A. When either EPA Method 25 or 25A is used, capture efficiency shall be determined as prescribed in EPA's "Guidelines for Determining Capture Efficiency" dated January 9, 1995, or EPA Methods 204 and 204A through 204F. For the purpose of determining control device efficiency, any compound listed in Section 8-52-217 shall be included as volatile organic compounds. A source shall be in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this Rule. For polyethylene and polypropylene foam product manufacturing operations, the VOC loss from the operation as established at the time of source testing for a Permit to Operate shall be applicable for subsequent emissions determinations.